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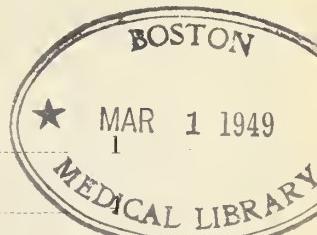
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THE JOURNAL OF THE MEDICAL ASSOCIATION OF GEORGIA

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Vol. XXXVIII

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No. 1

BRACHIAL NEURITIS DUE TO CERVICAL INTERVERTEBRAL DISC LESIONS

EXUM WALKER, M.D.

Atlanta

One of the gratifying rewards of our efforts in the study of medical science is the establishment of something really new and of lasting importance in the field of medicine, particularly the achievement of a true understanding of the nature of some common and distressing disorder which has plagued the wit of the physician in his daily practice. Such a milestone will be presented to you in this communication.

Some fourteen years ago there was published an epoch-making article on "Rupture of the Intervertebral Disc With Involvement of the Spinal Canal," by Mixter and Barr of Boston. This referred to herniation of the disc in the lumbar region, and it was suggested that this might be a common cause of low back pain and sciatica. It took years, however, for the true importance of this contribution to be widely recognized. It is now known by those well informed that the usual cause of low back pain with sciatica is a rupture of a lumbar disc.

Today we can inform you that rupture or herniation of a cervical intervertebral disc is the usual cause of pain which extends from the lower cervical spine into the upper extremity. The mechanism of the production of pain in this area is quite similar to that in the lumbar region, there-

fore the symptoms and physical findings are strikingly analogous. This condition, too, is quite common, and in the past has usually been classified as brachial neuritis, bursitis, myositis, fibrositis, radiculitis, cervical arthritis, cervical rib or scalenus anticus syndrome. Some of the latter conditions do exist but are now known to be relatively rare. To Semmes and Murphy go the credit for writing an article nearly five years ago which served to direct attention to cervical disc lesions, and to stimulate other neurosurgeons to accumulate facts which have culminated in our present knowledge of this condition. Yet, as was the case with herniations in the lumbar region, the dissemination of knowledge, and the acceptance of it as a lasting contribution, has been a slow process. I am sure, however, that within a few years the recognition of cervical disc ruptures as the common cause of so-called brachial neuritis will be as widespread as the recognition of lumbar disc lesions is today.

The clinical picture is that of so-called brachial neuritis, with which you are all familiar. It is that of pain involving one of the lower cervical nerve roots. The patient usually complains of pain over the suprascapular region, often radiating into the shoulder region and distally down the arm. He may have experienced some numbness or tingling sensation in some of the fingers, and the location of this sensory disturbance is of importance in deciding which nerve root is involved. The onset will often be that of a painful crick in the neck, though the patient does not usually volunteer this information. Often he will tell you that certain positions of his neck

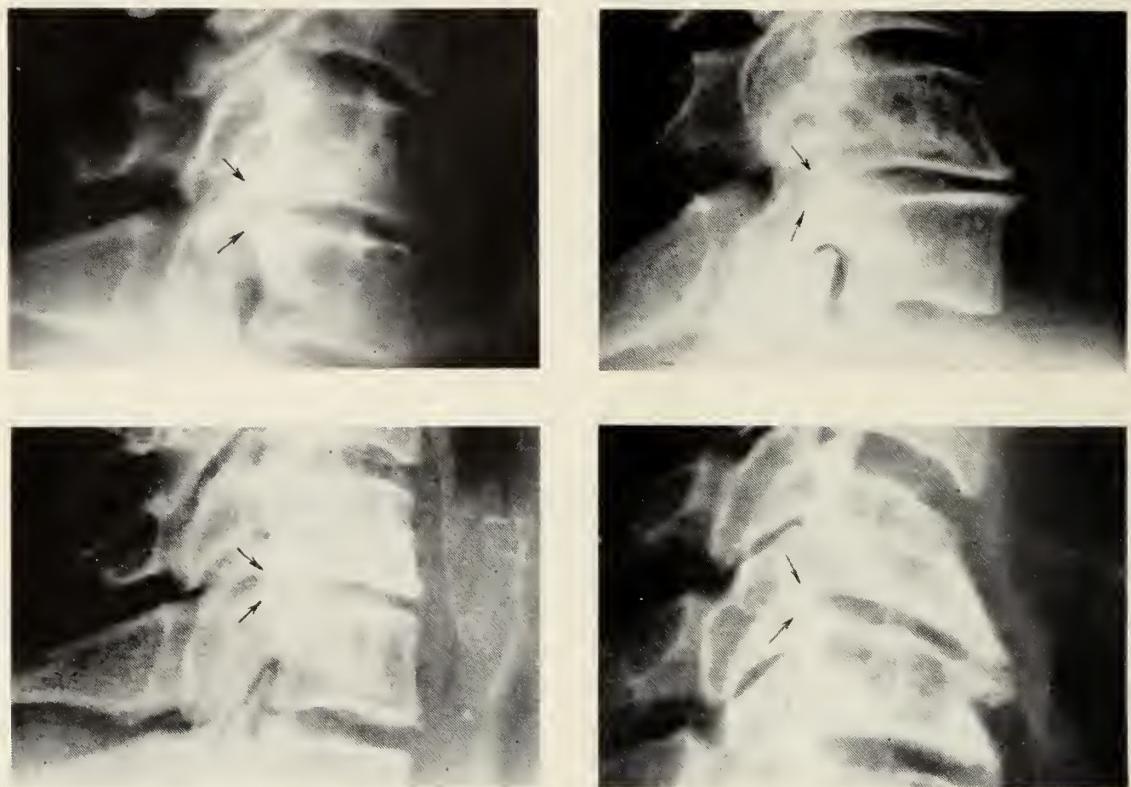


Figure 1. X-ray films of cervical spines showing narrowing of intervertebral disc spaces with hypertrophic marginal changes projecting into spinal canal.

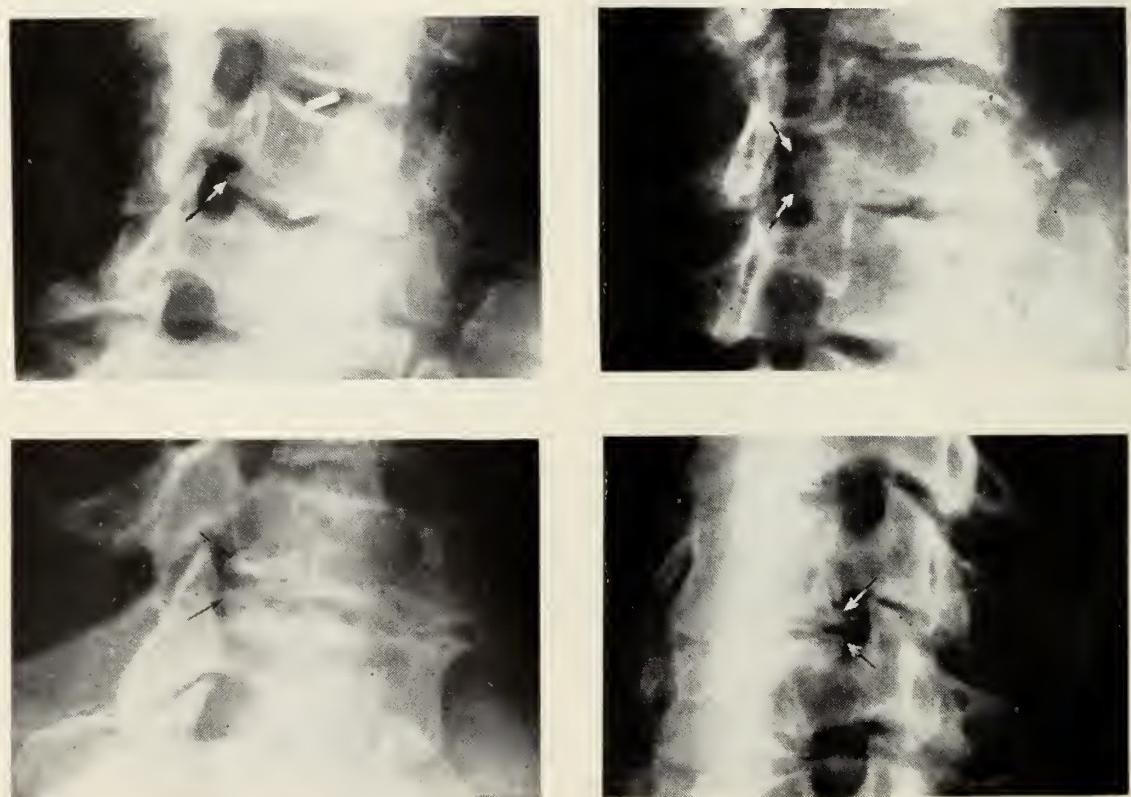


Figure 2. Oblique views showing encroachment of intervertebral foramina by hypertrophic marginal changes. Nerve root compression was demonstrated at operation in each case.

or arm will either accentuate or ease his pain.

Physical examination will reveal some of the following findings:

The head may be held with a list to one side and there may be painful restriction of motion in the neck. Forceful compression of the head on the neck may reproduce the pain. Tenderness over the lower cervical spinous processes may be present. There is usually tenderness over the nerve roots as they emerge from the spine laterally, and over the brachial plexus. If the nerve root is sufficiently damaged, there may be found reflex or sensory changes, and these neurologic findings will be of considerable importance in determining which nerve root is involved, and which disc is ruptured.

X-ray studies of the cervical spine will aid in the diagnosis. In a recent rupture there may be no x-ray changes, but in lesions of long standing one may see a narrowed disc space and hypertrophic marginal reaction opposite the injured disc. There is often seen a straightening or reversal of the normal cervical lordosis, which is the result of muscle spasm, just as in the case of ruptured discs in the lumbar region. Oblique views taken in the long axis of the intervertebral foramina may show a narrowing of the space through which the affected nerve passes. A cervical myelogram is sometimes necessary to confirm the diagnosis.

The treatment in most cases is conservative. Since the pain is due to nerve irritation, which is purely mechanical, the treatment should be directed accordingly. In most instances, rest and immobilization are all that is necessary. The pain usually subsides spontaneously within a few days. Symptomatic therapy is given for the relief of pain. In the more persistent cases, a cervical brace, or even head traction, may be useful. If the pain and disability should

persist after a reasonable trial of conservative treatment, then surgical decompression of the nerve root should be seriously considered. This can be done easily by making a small opening through the bone overlying the nerve where it courses over the disc in the proximal portion of the intervertebral foramen. This is accomplished with a dental drill and does not weaken the spine. If the herniated portion of the disc is soft, it should be removed, but if it is firm and calcified it is better merely to decompress the nerve. This is not a difficult procedure, and the patient may be allowed out of bed as soon as the soreness of the operative region permits. No brace is necessary and no weakness of the cervical spine results.

The relief of pain is often immediate and dramatic, but in lesions of long standing, where the nerve has been considerably irritated, it may require several weeks for the pain to subside. In general, the relief of pain following surgery has been very satisfactory, and is comparable to the relief obtained by operating upon herniated discs in the lumbar region.

It must be kept in mind that rupture of a cervical disc occurs very frequently and is the most common cause of pain in the shoulder and arm, just as rupture of a lumbar disc is the usual cause of low backache and sciatic pain. Likewise, in most cases the pain subsides spontaneously within a few days of conservative treatment. When the pain is severe and persists, however, surgery is the treatment of choice.

TUBERCULOSIS MORTALITY

Mortality from tuberculosis in the United States continues to decline. The death rate in 1946 in metropolitan New York was 33 in the white population and 153 in the colored. The combined death rate for the recorded mortality for New York City for 1946 was 41.7 as compared with 45.4 the year previous, a decline of 8 per cent—one of the largest in years. The incidence rate during the 1942-1946 period varied all the way from 47 per hundred thousand in the Gravesend Health Center District of Brooklyn to a rate of 380, almost eight times as great, in central Harlem.—Current Comment, J.A.M.A., June 26, 1948.

HEAD ENLARGEMENT IN INFANTS

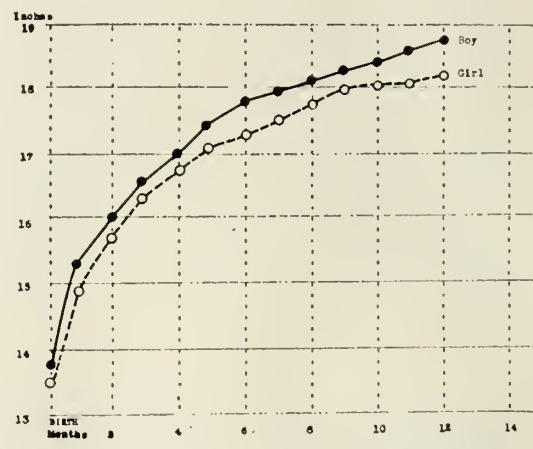
CHARLES E. DOWMAN, M.D.
Atlanta

The numerous causes of head enlargement in infants are at times easy to determine, and sometimes more difficult. One of the best ways to detect this group early is by routine head measurements. For this purpose a steel tape measure is best, since it is most accurate. One should obtain the maximum circumference, or occipitofrontal. Here is a chart taken from Davison's Compleat Pediatrician¹ which shows the normal figures for girls and boys in the first year (Chart I).

The early recognition of head enlargement is of utmost importance for the infant, for only by the early discovery of these cases can the neurosurgeon be able to do anything constructive for these little patients. Since the brain grows very rapidly, doubling its weight by nine months, and trebling it at the age of three years, anything except brain tissue occupying the space is a detriment to brain development. Excess fluid, extravascular blood or tumor all handicap the rapid normal brain development. It is obvious that a paper-thin cerebral cortex is not going to function normally.

Table 1 shows the more usual causes of head enlargement in infants. For brevity we must dispose of some causes rapidly. Cephalhematoma is limited to the confines of one bone. There may or may not be underlying fracture; if so, this is usually linear. X-ray taken tangentially can rule out depressed fracture, as from forceps, or focal injury by a rounded or semi-sharp object, and these depressions can frequently be palpated early. It usually resorbs without specific treatment, and should not be

Chart 1 - Normal head sizes.



aspirated repeatedly because of the risk of infection. A single aspiration for confirmation of diagnosis is permissible in obscure locations, such as the occipital bone, but extreme care should be taken to avoid infection.

Meningoceles and meningoencephaloceles are usually pedunculated, usually midline, and easily recognized as such. Surgery

Table 1.

Head Enlargements in Infants

- | | |
|-------------------|-------------------|
| 1. Hydrocephalus | 4. Abscess |
| a. Internal | 5. Meningitis |
| b. Communicating | 6. Rickets |
| 2. Hemorrhage | 7. Achondroplasia |
| a. Cerebral | 8. Meningocele |
| b. Subdural | |
| c. Cephalhematoma | |
| 3. Tumors | |

is of benefit in selected cases.

Achondroplasia gives a moderate head enlargement associated with short arms and legs. There is no treatment.

Rickets usually shows head enlargement of mild degree. The prominent frontal and parietal bosses, rachitic rosary and bow-legs are a help in diagnosing these.

Meningitis usually does not produce head enlargement *per se*, but may do so by blocking absorption of fluid passages with resultant hydrocephaly. Treatment of meningitis is not within the scope of this paper.

Presented before the Medical Association of Georgia at its annual session, Atlanta, April 29, 1948.

Brain abscess in infants is quite rare: It may occur as a spread from otitis, or be blood-borne. Evidence of primary infection, fever early, and elevated white count, particularly polymorphonuclear count late, give a lead as to possible diagnosis. Generally those from ears are favorable; blood-borne unfavorable in prognosis.

Hydrocephalus is readily divisible into internal and communicating by dye tests. First one must do a fontanel puncture, inject dye into the ventricles, and do spinal puncture after 30 minutes. The rapid appearance of the dye in the first few cubic centimeters bespeaks a communicating type, and its absence in the spinal fluid, or a completely "dry tap" indicates an internal hydrocephalus. By using P.S.P. and collecting the urine and alkalinizing it, one can obtain an indication as to the efficiency of absorption.

Some cases of communicating hydrocephalus show no dye in the urine after 24 hours. The method used for fontanel puncture will be discussed later.

Case 1—Internal Hydrocephalus—demonstrates an early diagnosis of hydrocephalus, intrauterine.

This x-ray, figure 1, was taken by the obstetrician because the head had not engaged in the final month of pregnancy. When the child was first seen at 19 days of age, I was not too impressed with the head size of 16 3/8 inches, since at that time I had not made it a habit to compare the head measurements with the standard chart, so I had the child return in a month, at which time the head measured 19 inches and the patient was admitted to the hospital. Fontanel injection of 1 cc. of P.S.P. was done, the cortex measuring 2 cm. in thickness. Ventricular fluid was clear, but contained 77 mg. per cent total protein, normal being 0.7. Spinal puncture yielded no fluid.

Air was then injected into the spine and another x-ray made (Figure 2), which shows air in the basilar cisterna only, demonstrating the fact that the block was in the ventricular system. Urine showed less than 1 per cent P.S.P. after two hours. Third ventriculostomy was done to allow the fluid to escape from the ventricles, and the right choroid plexus was excised.

At 2 1/2 months the head measured 18 1/8 inches, and at four months 18 1/4 inches, so left choroidectomy was done.

At five months the head again enlarged, now to 20 1/8 inches. The child held her head up, could not talk, but did a few handies, such as patty-cake, bye-bye, and throw a kiss. She preferred to use her right hand, and showed right internal strabismus. There was as yet no habit training, but the mother had done little to help in this. By 16 1/2 months the head measured 24 inches. The child could sit alone, say a few words, and was bowel-trained.



Figure 1—Case 1
X-ray of skull in last month before birth.



Figure 2—Case 1
Air under tentorium, following spinal injection.

At 20 months the child fell out of her Taylor-Tot. When admitted to the hospital following this injury, effort at spinal puncture was not successful. No further head enlargement has occurred, the head still measuring 24 inches at 23 months. The child sat alone, had a vocabulary of 25 to 30 words, and was bladder-trained. Here is a picture on her second birthday (Figure 3).

In passing, perhaps a Torkildsen's procedure, where a catheter is installed between occipital horn and cisterna magna, might have been more efficient than



Figure 3—Case 1
At 2 years of age.



Figure 4—Case 2
At 26 months of age.

third ventriculostomy, since we were still unable to obtain fluid from the spine canal at 20 months.

Case 2—Communicating Hydrocephalus. This boy was seen at five months of age, when the head measured 18½ inches, having enlarged rapidly, according to the father, in the previous month and a half. Fontanel puncture showed a 1 cm. cortex, and dye appeared on spinal puncture after 30 minutes. Total protein was 85 mg. per cent on ventricular fluid. The right choroid was excised then, and a month later the left choroid was excised. The next time this child was seen was at the age of 2½ years, when the head measured 22½ inches. The fontanel was still open. He had no bowel or bladder control; he balanced his head but could not sit alone. His picture at the age of 26 months is seen in Figure 4.

These are two of the ten hydrocephalics seen in the past two and a half years in the office, four of whom were operated on, with one death. The results are not dramatic. Choroid excision offers the only hope.

Case 3—Brain Tumor. This child was first seen at the age of one month, having had projectile vomiting for the previous week, and rapid head enlargement over the previous two weeks. At birth there had been meconial soiling during the early second stage, so forceps were used to terminate the labor. Two loops of cord were found about the neck, and one true knot. Resuscitation was necessary, but not too difficult.

On admission to the hospital the child showed a head measurement of 18 inches in circumference with a chest of 12½ inches. There was a right internal strabismus. Fontanel puncture yielded bloody yellow fluid superficially on the right, and at a depth of 2 cm. on the left. Ventriculogram on second hospital day, with 40 cc. of air, showed enlarged ventricles only. Repeated fontanel and spinal punctures yielded bloody



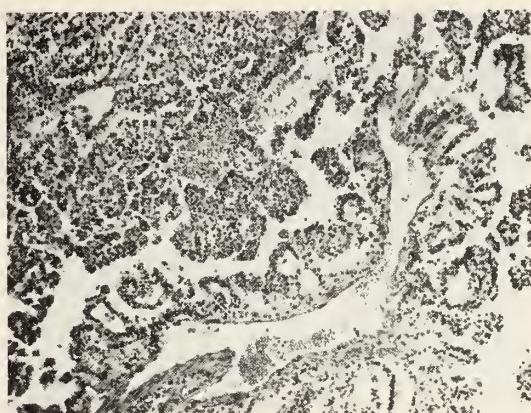
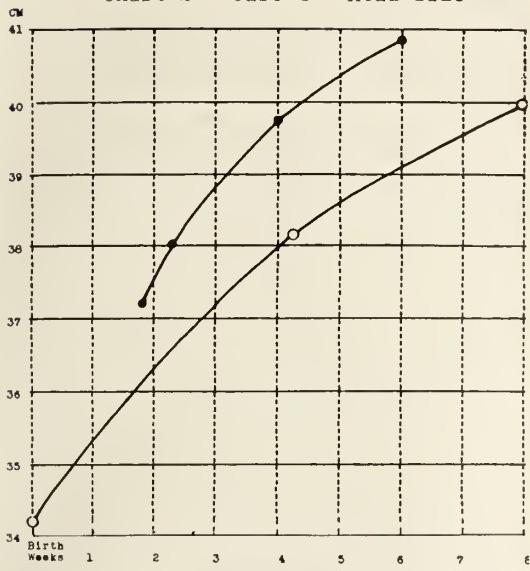
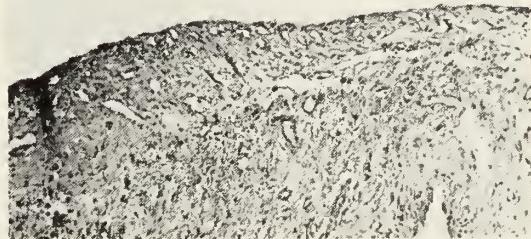
Figure 5—Case 3
Ventriculogram showing papilloma of choroid plexus.

yellow fluid of the same intensity for three weeks, so another ventriculogram was done (Figure 5).

It delineates an intraventricular tumor. This was removed at the age of eight weeks. Figure 6 shows the section of the papilloma of the choroid plexus. Spinal drainage was continued for the next two weeks, then no fluid could be obtained by this route, so fontanel punctures were again used. The child lived to the age of four months, but never gained weight, and never really looked good. At autopsy the tumor was almost entirely removed, but there was a block of the foramina of the fourth ventricle due to a second papilloma. This should have been suspected when no fluid could be obtained by spinal puncture 21 days after operation.

Brain tumors occur throughout life, being 1.8 per cent of all tumors. Those of early infancy are usually malignant

Chart 2 - Case 4 - Head size

Figure 6—Case 3
Photomicrograph of choroid plexus papilloma.Figure 7—Case 4
Hemangioma membrane removed at age of 43 days.Figure 8—Case 4
Hemangioma membrane removed at age of 60 days.

Many obstetricians now inject vitamin K into the mother in early labor. This was not done in this child. The series I observed at Ann Arbor² contained a high percentage of illegitimate children, with poor diets.

In the past 2½ years I have cared for

gliomas. The tumor in this case appeared to be a friendly one, yet in surgery of such small infants the risk is still high. The continuously bloody fluid here indicated further study which led to accurate diagnosis, where at first the case had been considered as one of cerebral hemorrhage due to strangulation at birth.

Case 4—Meningomyelocele and Subdural Hematoma. This first-born girl was seen at the age of two days, having been born with a 7x6x4 cm. meningomyelocele with very thin skin in places; good bowel and bladder control, good movements of the legs and feet except for calcaneus position of the feet and absent ankle jerks, and some icterus neonatorum. Because of the last, operation was postponed for four days, then a very conservative excision was carried out, saving as much cord substance as possible. There was a 24-hour period where the anus did not pucker after operation, but this rapidly returned to normal. On discharge at the age of 13 days the head measured 37.2 cm. At 40 days it measured 40.8 cm. Comparison of Chart 2 with normal (Chart 1) showed that the head enlargement was more rapid than usual.

The child was admitted for probable choroidectomy, but fontanel puncture demonstrated bilateral subdural hematomas. These were excised at ages of 43 and 60 days, respectively, the child continuing to appear bright and active. Figures 7 and 8 show the two hematoma membrane sections: These hematomas must have dated from birth.

The coincidence of spina bifida and subdural hematomas in this case is unusual. Had the child not been under close observation for head size due to the spinal bifida, it seems unlikely that the head enlargement would have been noted unless one made routine head measurements.

The mechanism of subdural hematoma in adults has been extensively discussed by various authors. In infants there is apparently usually a lack of vitamins C and K.

four infants with subdural hematomas, all bilateral, with one death. The other three all had vomited considerably, and two had had convulsions. The three survivors all looked bright when first seen, in spite of head enlargement. By contrast, the usual hydrocephalic does not look bright. The one fatality, a 14-months-old child, had been sickly all his life. He fell off the bed three weeks before admission, and had been eating poorly for ten days, and convulsing for 12 hours. He was in an oxygen tent and moribund when first seen. Repeated fontanel punctures, tube feeding, oxygen, blood and phenobarbital gave little improvement in six days, so one side was operated on. Unconsciousness continued, and ventriculogram on the 19th day showed no tumor. On the 23rd day the other hematoma was removed. By the 56th day the child was eating and repeated aspirations at last yielded little fluid. Six weeks after discharge from the hospital the child was still very hypotonic, and it finally died two months thereafter.

The other two children did quite well. One, an illegitimate, has been adopted. One infant with bilateral subdural hygroma was treated by aspiration only, and did well.

A few words now as to fontanel puncture: This diagnostic procedure is of great help in the study of this group of cases, is fairly simple, and is reasonably safe. The hair is shaved for a distance of two inches about the lateral angle of each fontanel, and the skin cleansed and prepared with iodine and alcohol. A few drops of 1 per cent novocaine to blanch the skin will give sufficient anesthesia. A short-bevelled 20 gauge spinal puncture needle is inserted against the bone edge, then advanced just beyond it, and the obturator removed. If there be bloody fluid in the subdural space it will now run out of the needle. Aspiration with a syringe can be

tried, but usually is not necessary. If no subdural fluid is obtained the needle is then advanced toward the ventricle in 1 cm. steps, the obturator being removed each time, and an estimate of the cortical thickness thus obtained by the depth at which the ventricle is first encountered.

Summary

1. Various causes of head enlargement have been discussed.
2. Routine maximum head measurements and comparison with "normal" chart is recommended, so that cases of head enlargement may be recognized earlier.
3. The treatment of hydrocephalus still leaves much to be desired.
4. Subdural hematomas should be suspected in children with head enlargement who look intelligent. The results in this group are quite favorable.

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FACIAL PALSYES

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Facial paralysis is of frequent occurrence and often alarming and distressing to the patient. Properly interpreted, it serves as an important guide in the diagnosis and localization of diseases in the nervous system. Because of its frequency and its importance in diagnosis and treatment, a brief review of the various types of paralysis, and the more common etiologic factors should be of interest. The two main types of facial palsy are those due to lesions of the upper motor neurone spoken of as supranuclear or central, and those of the lower motor neurone spoken of as peripheral. The latter may be due

to a lesion of the facial nucleus, the efferent fibers within the pons, or anywhere along the root and peripheral nerve.

Anatomic Considerations

The upper motor neurone for voluntary innervation of the facial muscles begins in the face area of the precentral gyrus and passes down with the corticospinal tract as part of the aberrant pyramidal tract to the facial nucleus in the pons, crossing to the opposite side just above the nucleus. That portion of the nucleus supplying the muscles of the upper face (frontalis, orbicularis oculi) is also innervated by descending fibers from the cortex of the same side and consequently has a bilateral cortical innervation. That portion of the nucleus supplying fibers of the lower face has only unilateral innervation from the cortex of the opposite side.

There is much clinical evidence to indicate a separate supranuclear pathway for emotional or mimetic movements, as in smiling or laughing. The cortical origin of this pathway is uncertain but, as Wilson¹ emphasized, it is part of an integrated faciorespiratory mechanism for the expression of emotion. He referred to the work of Spencer, who described an inhibiting pathway from the undersurface of the frontal lobe which descends near the thalamus, and an exciting pathway from the sensory cortex which descends through the lenticular nucleus, the two paths coming together below the thalamus. Davison and Kelman² in a study of pathologic laughing and crying stated that frontal, motor and sensory cortical areas all influence emotional responses, but through an inhibitory influence on thalamic and hypothalamic centers; these subcortical centers are the activators of emotional movements by way of fibers which descend in the tegmentum of the brain stem to the facial nuclei and the respiratory centers in the medulla. There is general agreement on

this location of the fibers in the brain stem. Magoun and others³ obtained coordinated faciorespiratory movements experimentally by stimulation of the tegmental region of the midbrain and pons, and later⁴ produced lesions in these areas confirming the location of centers for the integration of these movements in the midbrain around the aqueduct. Weinstein and Bender⁵ also produced facial grimacing on stimulation of the brain stem.

The lower motor neurone arises in the motor nucleus in the tegmentum of the pons, and the fibers first pass up and around the nucleus of the sixth nerve, then descend and emerge from the lateral border of the pons. The motor root passes through the subarachnoid space in close relation to the sensory root and also the acoustic nerve to enter the internal acoustic meatus. Here it soon separates from the acoustic nerve and enters the Fallopian canal, proceeding laterally in a horizontal direction between the cochlea and the vestibule to the knee or genu; it then passes backward just above the oval window and soon turns to descend and finally emerge from the stylomastoid foramen. At the knee, the motor root unites with the sensory root or nerve of Wrisberg with its geniculate ganglion. Important branches given off in the canal are (1) the greater superficial petrosal, carrying secretory fibers to the lacrimal gland, and vasodilator fibers to the pial and cerebral vessels; (2) the nerve to the stapedius muscle; and (3) the chorda tympani, which later joins the lingual nerve and carries sensation of taste from the anterior part of the tongue and secretory fibers to the sublingual and submaxillary glands. The bony canal is about 1.5 millemeters in diameter. Extracranially, the nerve passes forward within the substance of the parotid gland and divides just behind the ramus of the mandible into its termi-

nal muscular branches, temporofacial and cervicofacial. It supplies all the facial muscles, except the levator of the eyelid.

Supranuclear Palsies

Supranuclear or central palsies involve only the lower part of the face on the opposite side, because of bilateral cortical innervation of the upper muscles. There results inability to retract the mouth on the affected side. There is no difficulty in wrinkling the brow, and little or no difficulty in closing the eyelids tightly. The most common causes are tumors and vascular disorders as hemorrhage or softening, which may be anywhere above the pontine nucleus—cerebral, midbrain or upper pons. Another characteristic of central palsies is that there may be a dissociation between voluntary and emotional or mimetic movements. In the more common type due to lesions of the motor cortex or corticospinal tract, voluntary movement is impaired, but emotional movement as on smiling may be preserved. Occasionally, as Monrad-Krohn⁶ has shown, emotional movements may even be accelerated and exaggerated on the paralyzed side. In other cases, due to lesions of the centers or paths controlling mimetic functions, voluntary retraction of the mouth is normal, but emotional movements are impaired. It is important to recognize these cases by observing patients carefully as they spontaneously smile and talk. Although habit and local conditions about the mouth have to be evaluated⁷, this emotional paresis is particularly valuable in the diagnosis of deepseated tumors of the frontal and temporal lobes. Both McLean⁸ and Karnosh⁹ have shown that this type of paralysis in cerebral tumors and vascular diseases indicates a deep subcortical (thalamostriate) lesion, and Karnosh emphasized its occurrence also with tumors of the midbrain and upper pons. In our experience this emotional paresis

has been particularly valuable as an early sign of a focal brain lesion such as tumor, in a patient who may otherwise be showing only vague mental symptoms; it also indicates the side of the brain involved. In a unilateral Parkinson syndrome there may also be impairment and delay in emotional movements on the side involved.

Peripheral Palsies

Peripheral facial palsies, unlike the central type, affect equally all the muscles of the same side of the face, for both voluntary and emotional activity. It is much more alarming and distressing than a central palsy. Occasionally the paralysis is bilateral, a facial diplegia. The patient is unable to wrinkle the forehead, corrugate the brow, close the eyelids, retract the mouth or activate the smaller muscles of expression. There is difficulty in eating, since food collects between the cheek and gum on the paralyzed side, and liquids tend to run out the corner of the mouth. There is often excessive lacrimation on the involved side, producing misty vision. The normal upward movement of the eyeball on attempts to close the eyelids can be seen (Bell's phenomenon). Conjunctivitis may result from failure of reflex blinking. Speech may be defective. The corneal and orbicularis oculi reflexes are lost. The latter is best obtained according to Wartenberg¹⁰ by holding a fold of skin at the outer canthus between the thumb and index finger, pulling back slightly and then tapping the thumb; bilateral blinking should follow. Impairment of these reflexes indicates a peripheral type of palsy if there be any doubt. Mild forms of bilateral weakness may occur also in muscular diseases without nerve lesion. In myasthenia gravis this weakness is recognized by its prompt relief by injection of prostigmin, and in the myopathies there is associated muscular atrophy. Other symptoms of a peripheral nerve lesion depend on the location of the lesion.

In all types of peripheral palsy, if recovery does not begin early, the muscles gradually undergo degenerative changes. Within two weeks, in severe cases, a loss of response to faradic stimulation develops, and indicates that recovery will be delayed at least several months. If degeneration progresses, the response to galvanic stimulation also changes, the irritability first being increased, but the muscle contraction being of slow type, and finally a change in the polar response occurs. In long standing cases lack of all response to stimulation may develop. A normal electrical response two weeks after onset usually indicates an early recovery will occur.

If recovery is incomplete, a contracture often develops so that the mouth is retracted on the paralyzed side. Associated movements are common also, so that on closing the eye the mouth retracts and vice versa. This has been explained as being due to faulty regeneration with misdirection of fibers. The same explanation is given for the rare cases "of crocodile tears", where excessive tearing occurs on the involved side on chewing strongly flavored substances¹¹. Spontaneous twitchings of muscles may occur at various intervals.

Special types of peripheral palsies are:

1. *Pontine lesions.* Paralysis due to a lesion of the nucleus may be due to congenital aplasia, poliomyelitis, tumors or vascular lesions. Due to the proximity of the sixth nerve nucleus, most nuclear lesions will be accompanied by paralysis of the external rectus muscle producing internal squint on the same side. In the congenital type due to aplasia, these are usually bilateral palsies¹². Especially significant is a paralysis of conjugate deviation of both eyeballs toward the paralyzed side. This is characteristic of pontine tumors, although it has been seen occasionally in multiple sclerosis. With a larger pontine

lesion there is involvement of the neighboring corticospinal fibers for the arm and leg on the opposite side, resulting in a crossed paralysis. All these signs are characteristic of pontine lesions.

2. *Extrapontine lesions.* Lesions affecting the nerve root between the pons and the entrance into the acoustic meatus are almost always accompanied by involvement of the acoustic nerve. Tinnitus and varying degrees of deafness are then associated. A common cause of such a lesion is meningitis of some type. Facial palsy may be the only sign of syphilitic meningitis (neuro-recurrence) so that serologic tests are indicated in all cases not otherwise explained. In these cases the paralysis is not uncommonly bilateral. In tumor of the acoustic nerve, the facial palsy is almost always preceded by a long history of tinnitus and progressive deafness on the same side. The nerve may also be involved here in the form of a radiculoneuritis, in the Guillain Barré syndrome and other types of polyneuritis, and the paralysis is usually bilateral.

3. *Lesions in the Fallopian canal.* By far the most common types of peripheral facial palsy are due to lesions within the Fallopian canal. A number of associated signs and symptoms are then present. If the lesion be proximal to the geniculate ganglion, there is diminished secretion of tears on the involved side, leading to dryness of the cornea. There may also be unpleasant sensitivity to noise (hyperacusis) due to paralysis of the stapedius muscle. If the lesion be distal to the ganglion, then there is increased lacrimation and, more important, there is also a loss of taste on the anterior two-thirds of the tongue. This is most significant in localizing the lesion in the canal, but since the patient is unaware of it one must test for it. This is done by application of suitable substance while the tongue is kept protruded. While the most common cause

of a lesion here is assumed to be a "neuritis", other types must be considered.

A. *Trauma to the head.* Facial palsy following head injury may be immediate or delayed several days to a week. It is usually associated with bleeding from the ear and sometimes with deafness. Turner¹³ studied 70 cases. In the immediate type, it is probable that the nerve is lacerated by a fracture of the temporal bone. The prognosis for recovery is poor. In the delayed type, the nerve is probably compressed by a hematoma in the bony canal, and recovery usually occurs within three months. Four cases seen by me were all of the delayed type and all recovered on conservative measures. Surgical exploration should be seriously considered in the immediate type, since resuturing or nerve grafts have been reported with successful results.

B. *Surgical trauma.* Following operation on the mastoid, the nerve may be traumatized or sectioned. If paralysis occurs immediately following operation, the nerve should be exposed and, if sectioned, resuture or grafting performed. In some cases a delayed palsy appears, often due to hematoma, and these should be treated conservatively for at least several weeks before considering surgery. Six cases have been seen by me; in four the paralysis was noted immediately following operation. In one, exposure of the nerve revealed it to be intact and recovery followed; in another the nerve was found sectioned, and was sutured with satisfactory recovery a year later. The two with delayed onset recovered with conservative measures within three months. Facial paralysis may follow section of the fifth nerve root for trifacial neuralgia. When done by the temporal approach, this is attributed to pulling on the greater superficial petrosal nerve and occurs in about 6 per cent of cases¹⁴. Recovery usually occurs within a few weeks. One case of permanent par-

alysis following operation by the occipital approach has been seen, in which it is believed the nerve root was unfortunately sectioned.

C. *Otitis media and mastoiditis.* A facial palsy accompanying acute otitis media is rare, and recovery will usually occur with the usual treatment for otitis¹⁵. In chronic cases, surgery is indicated.

D. *Hemorrhage.* Hemorrhage into the nerve sheath may occur in cases of hypertension, producing a very sudden facial palsy; there are often an associated papilledema and retinal hemorrhages. Griffith¹⁶ reported a case in which autopsy confirmed that a hemorrhage into the Fallopian canal had occurred. Merwarth¹⁷ reported 16 cases of facial palsy associated with hypertension, which constituted 3.7 per cent of his series of peripheral facial palsies. The prognosis for recovery of the paralysis is usually good. Two cases have been seen by me. In one the patient noticed sudden inability to continue whistling. Both had blood pressure readings over 200 mm. with hemorrhages in the ocular fundi. Both recovered from the paralysis within several weeks.

E. *Leukemic infiltration.* Garvey and Laurence¹⁸ reported three cases of facial palsy due to leukemic infiltration of the nerve, early in the disease. In one case the paralysis was bilateral.

F. *Herpes zoster.* In so-called "geniculate herpes" there is pain behind or in the ear, followed by a herpetic eruption and facial palsy. The eruption may be over the external ear, auditory canal, tympanic membrane, soft palate, or scalp, corresponding to the distribution of sensory ganglia of either the 5th, 9th, or 10th cranial nerves or of the ganglion of the second cervical root. There is no proof that a true geniculate ganglionitis occurs. The only pathologic evidence available is that in the case of Denny-Brown, Adams

and Fitzgerald¹⁹ who found an independent motor neuritis of the facial nerve associated with ganglionitis of the second cervical root. Cases with involvement of other cranial nerve ganglia are reported by O'Neill²⁰. Many of these cases are diagnosed erysipelas due to the swelling and redness of the external ear. There may be associated deafness, tinnitus and vertigo. There is often a cervical adenitis. Recovery in these cases is often slow. I have seen five cases. Only two who made a satisfactory recovery with prolonged electrical treatment and massage. Surgical decompression of the nerve might give better results where recovery is long delayed.

G. Tumor of the seventh nerve. A neurinoma of the 7th nerve within the Fallopian canal has been reported in a few cases²¹. Most cases have had a facial palsy of some years in duration before diagnosis is made. If the horizontal part of the nerve is involved, deafness or a secondary otitis media later develops. If the descending part of the nerve is involved, a mass later appears in the posterior wall of the auditory canal. Removal of the tumor, and nerve grafting or other surgical measures, are indicated.

H. Bell's palsy. This is the most common type, and is also called "rheumatic" or refrigeration palsy. It may follow exposure to cold or wind, but this history is frequently lacking. There may be considerable pain behind the ear at the onset. The etiology and pathogenesis are still in dispute. It is considered by some to be due to neuritis, secondary to a focus of infection. However foci are not often found, and the course of the disease does not seem to be influenced by removal of such foci. Others have suggested that it is due to a virus infection. Most authors consider it to be an interstitial neuritis with edema so that the nerve fibers are compressed in the small bony canal. Balance and Duel²² emphasized this and advo-

cated early decompression by opening the canal and splitting the nerve sheath. Kettel²³, on the basis of 50 cases in which he found an associated necrosis of the bony wall (in 36 per cent) and in the mastoid cells (in 20 per cent), concluded that the process in both the nerve and the bone is due to ischemia with secondary edema of the nerve. He postulated a vaso-motor disorder of some type and believed that surgery was beneficial by improving the blood supply to the nerve as well as relieving compression. This theory is rejected by Reese²⁴. Others have described an abnormal constriction of the nerve at the stylomastoid foramen²⁵.

It is unfortunate that many patients are frightened by being told that they have had "a stroke". The paralysis may occur at any age; in my 125 cases the youngest was 11 months, and the oldest was 77 years. The sexes are equally affected. It is frequent in all seasons. It is sometimes familial. One patient of mine stated that the mother and grandmother had also been affected. It is seen occasionally in the early puerperium. It may recur on the same or opposite side. Merwarth²⁶ reported 19 cases with recurrence in three weeks to 30 years, which represented 7.7 per cent of his group. Kettel reported eight cases with recurrence two to nine times. In my group of 125 cases there were two cases with recurrence on opposite sides, and one on the same side, with recovery in all.

The prognosis varies, but all authors agree that about 80 per cent recover with conservative treatment. In mild cases recovery may be satisfactory within two weeks; in more severe cases with early reaction of degeneration improvement may set in only after four to five months and never become satisfactory. The finding of normal electrical reactions two weeks after the onset should mean an early recovery.

There are many points of dispute in regard to treatment. Many patients have been told that no treatment is needed, which sometimes results in the fact that no improvement occurs. Most authors advise heat or counterirritation, as by a cantharides plaster placed over the mastoid, if seen in the first day or two. Salicylates are prescribed in the first week, and then iodides in moderate doses. Penicillin, sulfonamides and injections of thiamine chloride are often given, no one of which has a logical basis. Prostigmin has been suggested but seems to have no definite benefit. Vasodilators, as nicotinic acid in large doses, may be helpful. As soon as tenderness permits, gentle massage should be started several times daily. For sagging of muscles, various methods of splinting may be used. This may be done with strips of adhesive or hooks placed in the corner of the mouth.

After ten to 14 days the electrical reactions should be taken and, if there is a loss of faradie irritability, daily galvanic stimulation should be given. It is believed that this has positive value, as it does in other nerve lesions, in preventing irreparable muscle degeneration. No more than ten to 20 contractions of each muscle group should be produced daily, so as to avoid fatigue of the muscles. There is experimental evidence of the value of electrical stimulation²⁷, although some believe excessive treatments may contribute to the development of contracture. As soon as voluntary movement begins, electrical treatment is no longer necessary, as the patient can then exercise these muscles.

If signs of recovery do not develop, surgical decompression of the nerve should be considered. One can no longer ignore the results in this field reported by otologic surgeons. It is also of considerable interest that Kettel noted almost immediate release of contracture following operation

in one patient, since this is one of the common complaints in patients treated conservatively. There is as yet no final conclusion as to the time when operation is advisable; Kettel chose two months as the maximum trial of conservative treatment, and some have advocated operation even before this. Tickle²⁸ stated that if response to faradic stimulation is lost and no sign of recovery is seen in six weeks, operation is indicated; results are not so good if one waits several months or years. Others have advocated waiting six months before considering surgery, since some patients do make a fairly satisfactory recovery in four to five months. Further studies are indicated to decide this problem. Following operation, massage and galvanic stimulation are indicated until voluntary motion recurs. In cases of many months duration, or where the above procedures are not applicable, plastic procedures by implantation of fascial or muscle strips are indicated.

4. *Extracranial lesions.* Lesions outside the cranial cavity may be due to hematoma, cellulitis, stab wounds, tumors of the parotid, or operative trauma. Two cases in infants were seen due to injury in delivery by forceps; unlike the true congenital palsies these are unilateral. The cause is usually quite obvious and the treatment varies accordingly.

Summary

Facial palsies are frequent neurologic problems. The central and peripheral types, with the more common etiologic factors involved, have been briefly reviewed. Conservative and surgical methods of treatment and their indications have been discussed in reference to the peripheral types. More frequent consideration of surgical therapy is indicated when recovery is delayed.

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MATERNITY SERVICES IN RURAL AREAS

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The year 1947 produced the largest crop of babies in the history of Georgia, just under 92,000. Of these 91,957 maternity patients, 60,017 were delivered in hospitals and 31,863 were delivered in homes; 20.6 per cent of these deliveries were by midwives. This gives a figure of 18,907 babies still delivered by midwives. This percentage is considerably less than the year 1946, during which time around one third of the maternity cases were delivered by them.

In three counties in Georgia there was not a doctor. Fourteen counties had only one each. In 57 counties in Georgia without a hospital, 13,247 patients were delivered. In 60 other counties in Georgia there were only small privately owned hospitals ranging from two to ten beds. Our midwives, who last year delivered approximately 20,000 babies, have decreased in number from 3,171 in 1937 to 1,634 in 1947. This is a decrease of approximately 175 per year. As can be well seen the rural areas are faced with a number of problems in regard to maternity services.

Several kinds of facilities have been developed in rural areas in order to meet the need for services for maternity patients. In some areas doctors have set up delivery rooms in their offices and the patient has been brought into the office for delivery and returned home in a few hours. This was discussed by Drs. Torpin, Kay and Persall in a paper published in *The Journal of the Medical Association of Georgia* February 1944.

Stop now and write that letter to the Hotel DeSoto, Savannah, requesting a room for use at the annual session, May 10-13.

Presented before the Medical Association of Georgia at its annual session, Atlanta, April 29, 1948.

For the midwife patients who ordinarily would not have the services of a physician, local health departments in cooperation with the medical societies have set up health centers where these patients may come for prenatal medical care. The medical services are usually rendered by one of the local clinicians who receives an honorarium or part-time salary. In addition to medical services, there are other services which the public health nurse may render the patient, and in some health departments the home economics teacher or a local nutritionist assists the family, under the physician's guidance, with their nutrition problems. Part of the nursing service is home visiting, where the problems of the family at home may be seen and help given by the nurse. During the year of 1947 there were 157 such centers operating within the State. There were 16,717 admissions for prenatal service and around 3,500 for postpartum service.

One of the outstanding examples of community planning has been the development of a maternity home in Rabun County. This was begun in 1943 and has continued to enjoy a community popularity ever since. The home was developed as a community project with the physicians, county officials, lay and other organizations and agencies in the county participating. As the doctors are now doing practically all of their deliveries in the maternity home, this has been a welcome project in so far as they are concerned. The picture has changed from that of having practically all the deliveries done in the home to one in which this rural county has the second highest per cent of hospital deliveries in the State—around 98 per cent. Patients admitted to the hospital for services are those of the private physician and those of the lower economic levels who have been referred from the local health center where medical services have been

rendered by one of the physicians. Around 300 patients are delivered each year. The hospital fees are low. The county officials find it necessary to supplement the income from the patients in the amount of between \$1,500 and \$2,000 each year to cover expenses.

In two counties in Georgia nurse midwife services have been set up in cooperation with the local medical society, local health department and State Health Department. The nurse midwife works under standing orders approved by the local medical society.

The service in Walton County was begun Jan. 7, 1947. Nurse midwife patients are delivered in the local hospital with medical consultation furnished by local physicians. Patients are admitted to the hospital for three days at the total cost of \$15 which is equivalent to the fee charged by the local untrained midwife. Patients are sent home by ambulance on the third day. During the first year the nurse midwives delivered 64 cases. In addition to this, they assisted physicians with labor and delivery of 333 private cases. They have made 86 hospital prenatal visits and 958 hospital postpartum visits. The nurse midwives assist in the weekly prenatal conference at the county health department. They also make a minimum of one prenatal visit and three postpartum visits to the nurse midwife cases. The "granny" midwife deliveries have decreased from 165 in 1946 to 98 in 1947. This service is popular with the local physicians, the hospital and the local health department.

Nurse midwife services in Thomas County were begun in July 1947. This program was slow in getting under way and only 15 cases were delivered during the six-month period. Other services rendered by the nurse midwives are similar to those in Walton County in regard to the Health Department, but deliveries are not made

in the hospital, therefore they are not of the same assistance to the local physician with private cases. The reaction of the physicians in Thomas County, however, is favorable to the service as few of them wish to make home deliveries and only one is doing so at the present time.

In review, we may say that the problem of reaching the maternity patient in rural areas has been handled in several ways. Physicians have set up delivery rooms in their offices so that the patients may come to them for delivery and return home in a few hours. Prenatal services have been set up in the local health department with the cooperation and assistance of local clinicians for patients who would ordinarily be delivered by the midwife and never see a physician. Maternity homes have been developed as community projects. Nurse midwife services have been set up to replace the old untrained midwives with the services of the trained nurse midwife.

The development of programs for maternity care depend on local available resources and customs. It is perhaps well not to try to answer this problem with one solution but rather to do this in a variety of ways.

UREA MAKES SULFA DRUGS MORE EFFECTIVE

Urea, a chemical substance found in body secretions, and sulfadiazine given together are effective against infections which resist sulfa drugs, report two physicians.

Writing in the October 9 issue of *The Journal of the American Medical Association*, A. A. LaLonde, M.D., Austin, Texas, and W. James Gardner, M.D., Cleveland, Ohio, describe five cases of meningitis which were successfully treated with urea and sulfadiazine.

Of these, one case had resisted penicillin, sulfadiazine and other sulfa compounds, and another case had resisted penicillin and sulfadiazine. A patient had relapsed after seemingly being cured by penicillin and sulfadiazine, and the other two patients had shown unsatisfactory improvement after being treated with penicillin. All five patients were cured by urea and sulfadiazine.

Just how urea aids sulfadiazine in the fight against bacteria is not known, the article points out. Urea may overcome the resistance which some bacteria have built up against the sulfa drugs, laboratory experiments have indicated.

The membership of the Medical Association of Georgia reached the high figure of 2198 in 1948.

HEMATOLOGIC PROBLEMS AND THEIR MANAGEMENT

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As far as this thesis is concerned, I do not hope to present an unusually erudite hematologic rendition, but rather to relate some impressions of a practical type, based upon experience. It is doubtful that we really comprehend what an important part hematologic diseases occupy in our economy, or the number of persons in this country who may die from blood diseases each year. In 1945 more than 10,000 deaths occurred in this country from blood dyscrasias, and of these 3,237 were caused by curable or controllable types, such as pernicious or secondary varieties.

First, let us consider benign lymphadenitis, or infectious mononucleosis (known also as glandular fever). This disease is very common in Georgia, is often overlooked, and affects young adults and children. Its onset, more often than otherwise, is insidious, although not necessarily so, for I have seen cases which were very acute, in which the patient had a high fever, was quite ill, and occasionally in a semi-stupor. Nausea and vomiting may be quite distressing. Abdominal distention is notable, the pulse may be rapid, and jaundice develops occasionally. In this malady there is often a dangerously uncomfortable sore throat, with a membrane, congestion, and pain. The smears show mixed bacteria, including, on occasion, Vincent's spirochetes. Not infrequently vague and disturbing abdominal symptoms develop and, on one or more occasions, appendicitis was suspected. In this latter instance, the pathologic aberrations depended upon the mesenteric lymphadenitis. Presumably this infection can simulate

many diseases, and my most impressive experience was with a young girl about 20 years of age, who was referred to a colleague for study, referable to an intense, continuous headache with pronounced pain in the upper areas of the skull. One physician suspected brain tumor and, of course, the family was quite disturbed. A blood study made one suspect benign lymphadenitis, and the heterophile test was positive in high dilutions. She was sent home and recovered. One should remember several additional points about this affliction. First, it is nearly always accompanied by the characteristic type lymphocytic cell, in that the nucleus is eccentric, indented, and the cytoplasm shows small inclusion blisters, or scattered areas of circumscribed edema, or swelling. At times these small areas can be stained so that small micronuclei-like spots can be seen in the blister-like vesicles. Second, most people will have sensitive lymph nodes in the neck, axilla, inguinal, or elsewhere, usually accompanied by fever. Third, the blood count is more often elevated than normal, with an occasional leukopenia, and almost always with an increase in lymphocytes.

Furthermore, we must emphasize the importance of the headache, which, as I have said, is intense and persistent in some patients, involving all areas of the cranium and the muscles of the neck. Occasionally a mild meningismus develops and, indeed, some have reported a meningitis of transient type. However, in the patients seen the spinal fluid is clear, is under normal pressure, and the count is normal. The protein is slightly elevated. Finally, do not forget that mononucleosis is more often confused with leukemia than with any other scourge. Mistakes have been made which have almost wrecked the family and patient, and caused the visiting physician great distress.

Treatment for mononucleosis is largely routine. Recovery usually takes place in a few weeks' time, but some patients lapse into a chronic state and may show evidence of the infection for as long as $2\frac{1}{2}$ years. It may recur. Throat complications, with pain and membranous tonsillitis, often respond dramatically to sulfa and penicillin. Mapharsen is claimed to give dramatic results in uncomplicated cases. Park and his associates have used pooled plasma in the acute stages with uniform success. The disease is not without its anxious moments, in that among those patients who have occasionally died, seven expired because of splenic ruptures!

As a diagnostic aid, it is well to remember that the heterophile test, the so-called "Paul-Bunnell" serum agglutination of the sheep cells, is a specific and almost fool-proof diagnostic reaction for mononucleosis. The more we see of undetermined fevers, the more I am inclined to feel that this test should also be performed as a routine diagnostic procedure.

Next let us discuss primary anemia, or Addisonian anemia, also known as Biermer's anemia. This is a blood deficiency state which has been recognized for more than 100 years, occurring more often in men than women, and characterized by general weakness, tingling of the fingers, palpitation, loss of appetite, and a peculiar but striking lemon-yellow anemic appearance of the skin. In the latter stage of pernicious anemia the patient walks with difficulty; his skin is flabby and fatty and he may have extreme shortness of breath, accompanied with hemic murmurs. The hematologic picture varies in the beginning of the malady, the erythrocyte count is somewhere between 2,000,000 and 4,000,000; the leukocytes in normal range or low; platelets reduced, and the hemoglobin out of proportion to the anemia, so that in most instances we get a high color

index. In studying the differential cells we find little out of line from normal, unless the picture is complicated. To the trained eye, the most valuable finding concerns the presence of large, ovoid erythrocytes, associated with an occasional megaloblast. Added to the hematologic picture should be complete absence of hydrochloric acid in the stomach, and neurologic changes dependent upon cord degenerations.

It has been my experience, however, that there appears to be many different phases of pernicious anemia, and the condition should be established only after repeated study, carried on for periods long enough to remove all doubt of the diagnosis. When the problem is cinched, then the treatment is little short of magic, but many of us have made the sad, sad, mistake of diagnosing primary anemia, only to find out later that we had for months been needling a patient who had *cancer* of the stomach or colon; or perhaps myeloma, or occasionally a metastatic prostatic bone malignancy. It is imperative, therefore, that patients suspected to have pernicious anemia should most certainly have the benefit of a complete radiologic search.

Nowadays we have also a most unfortunate situation in the establishment of such a malady because so many patients almost immediately demand "shots for the blood" when the doctor speaks of anemia. The "shots" most often given, being liver extracts, will most certainly becloud the issue, and it may be years before the patient's true status becomes apparent. The management of pernicious anemia has become simplified by the advance improvement in vehicles for this purpose, and there is little need for more than iron and liver and good wholesome food, moderate exercise, and the removal of all foci of infection that might add fuel to the fire.

Folic acid can be given, 20 milligrams daily, if there be little evidence of nerve degeneration. If so, it should not be used, or should be cautiously given until further observation along this line has been made. It would seem that the best plan of treatment is to give 10-20 units of liver extract daily, or every other day, for 15 days; then twice to three times each week for about three months, and monthly for quite a long period, until the patient again feels normal. Some authorities think that once pernicious anemia is definitely established in a patient, he should receive liver for the balance of his life. Instances arise when blood transfusions should be given, and such therapy enhances the appearance and well-being of the person. However, this is not an overly important part of the treatment because the long, slow, blood destruction has allowed the patient to creep into a sort of compensation stage of his malady, and liver will eventually lift him out of the depressed blood state without great difficulty. Recently another important adjunct in treating pernicious anemia has been found by Drs. Karl Folkers and Mary Shorb of the University of Maryland. They feel that they have isolated a very potent factor from liver called vitamin B₁₂. A dosage of 3 micrograms produces good results.

To emphasize, it is now the opinion of most authorities at present that liver extract is the choice remedy for pernicious anemia. B₁₂ and folic acid are yet experimental.

Now we come to Hodgkin's disease, a condition first classically described in medical literature about 100 years ago. Someone has said that Hodgkin's is not ordinarily in the hematologic group of maladies, but its many features and pathologic characteristics force us to spend hours in the laboratory tracking it down. For many years it was closely allied to

the leukemia-lymphosarcoma group of conditions, and was finally placed in a separate category by Kundrat in 1893. Hodgkin's disease is a dreadful one, long and insidious in its progress. In many years I have seen only one arrested case. A great opportunity to study Hodgkin's disease in large groups occurred while on duty as pathologist to the Brooklyn Naval Hospital, in 1945. The wards contained as many as a dozen or more men in all stages of the malady. One man, here yesterday, would be gone today. To my great amazement, these lads had formed a "Hodgkin's Club" and would laugh and kid each other about their illnesses, in order to keep up a wonderful spirit, so that they could drive out the thought of certain death. They soon knew that treatment offered little hope.

Hodgkin's disease is another tricky disease, yet we think it certainly has a pattern. I once had an assistant laboratory technician who had nursed her husband through three years of the malady. She had studied and read everything she could find about it and we were amused and impressed when she would see a node case and say to me, "Dr. Norris, that man has Hodgkin's disease." We found her more often right than wrong. She had learned the pattern and had developed a clinical impression!

Hodgkin's is most often confused with reticulum types of sarcoma, tuberculosis such as Boeck's sarcoid, and, out West, with coccidiomycosis. The fever, cough, loss of weight, anemia, neck nodes and sweats, make it certainly similar to tuberculosis, and some think the diseases occasionally co-exist. Hodgkin's is a disease of mid-age, occurring more often in men than in women. First, there seems to occur a period of malaise, or below par feeling, and a moderate anemia. Then small neck nodes may occur, which are

often overlooked. Later, the nodes become prominent, usually appearing on one side of the neck; then others are found. More often they are grouped together. As a rule they are not sensitive; tend not to suppurate. The spleen gradually enlarges, is hard and firm, and often nodular. Masses may be detected in hilus chest areas and in mesenteric regions. The anemia progresses slowly. Most patients have fever, and the Pel-Epstein type is notable, though not constant. Pruritus is common and at times very uncomfortable. This irritation should always warn one of Hodgkin's. Essentially, the final diagnosis is established in the laboratory, where the nodes are dissected and histologically studied. Grossly, they are firm and pale, often appearing like sections made from codfish, with a diffuse greyish, faintly pink, color. In histologic section, the normal nodal architecture is completely altered from normal. Lymphocytes, plasma cells, and eosinophiles are enmeshed in a fibroreticular scheme and scattered among the fields one notes the multinuclear cells of the Sternberg type. The histologic diagnosis is not always an easy one. Radiation will often obscure the picture. There is no command made of the pathologist that puts him more to the test than to have to make an accurate diagnosis of Hodgkin's disease. The most efficient pathologists hem and haw over the problem and some make mistakes!

Now, what about the management of the patient with this malady? First, the disease, as we know it, is a fatal one. However, the reports of more and more cases of arrest are being published. Therefore, we can at least be encouraging to a degree. Dr. Loyd Craver of Memorial Hospital, New York, cites five cases of Hodgkin's surviving 5 to 11 years; two in England living 10 to 12 years. Prolonged cases seemed to him to be those who were treated aggressively. I have spent many hours trying to make up my mind

whether the nodal enlargement, so prominent in the condition, represented a resistance to the virus, or was a focus of the poison. If the focus of the disease, then why not surgically remove the nodes? Other helps, of course, embrace such things as good food, exercise, iron, vitamins, and transfusions, when indicated. Nitrogen mustard is not without danger and is no more beneficial than irradiation. No one has tried the hormones much. Radiation is the sheet anchor of therapy and this, together with surgical enucleation of the nodes, in early, selected, cases might offer hope of arrest. Conservative treatment with a good mental, hopeful, attitude will often enable the patients to go about their vocations for long periods before it becomes necessary to treat them with more active therapy.

Next on my list for discussion is leukemia. Practically speaking, the disease can be divided into the following groups: Lymphatic or myelogenous; eosinophilic, monocytic, and plasma cell types. I think we should try to stay away from the designation as to whether a leukemia be chronic or acute, unless one has a record of the case for many months. It is often quite difficult to say just when leukemia begins and to few diseases is the word "insidious" more applicable. No single symptom will give a clue to acuteness or chronicity. We know of a patient studied for nearly a year, watching his leukocytes rise from 20,000 to 125,000 and in whom we have yet to find an enlarged spleen or an enlarged lymph node externally, and it was months before he had the slightest reduction in hemoglobin! These facts we mention because the problem of acute or chronic so frequently arises from insurance sources, or the Veterans Administration: "Can you say this man has acute or chronic leukemia?", and upon an opinion might hinge important financial mat-

ters. The increased number of mature polynuclears in the blood gives an idea about the acuteness or chronicity. On the other hand a high neutrophile count might well be the result of a secondary infection, or of a sepsis. It is a well established fact, however, that from many patients studied through the past years, the opinion has gained ground that most leukemics die in 3 to 5 years after the detection of the malady, dying most often about 3½ years after the onset of symptoms. As far as I know, there is no accurate story that presents the early or premonitory symptoms of the disease. Most patients will say that for months, or years, past they have noted weakness which was bothersome but not incapacitating. Some finally go to the physician because they note a lump in the neck, or some other region. Others are detected during physical examinations. Many suffer sudden, unexplained, hemorrhages, or become otherwise anemic.

The leukemias certainly represent a grave problem in our practices. The malady now takes more than 6,000 lives a year, which is more than five times the number of deaths caused by infantile paralysis, and about twice the combined total from measles, scarlet fever, whooping cough, diphtheria, and almost as many deaths as from appendicitis. In the period 1941-45, it was 4 per cent of the number of deaths from cancer, exceeding the death rate from all forms of malignancy in childhood. The death rate is higher among males than females and in late childhood is twice that of females. To date no instance of recovery has been reported, although I know of one leukemic who lived for 14 years. As a general rule, a real acute leukemia runs a rapid, fatal course, although such termination might well be the end of a chronic form of the malady. Generally, the more acute the disease the less there is to indicate lymph nodal or splenic enlargement, and there is a greater tendency

to hemorrhage, especially in the mucous membranes. Chronic leukemias may well appear healthy for long periods, but the spleen is usually enlarged, the lymph nodes likewise enlarged. Periods of leukemia may also ensue. One outstanding feature of chronic lymphoid leukemia is a cough. It is commonly present, distressing, of a "rattling chest" type, and must not be confused with whooping cough or pneumonia.

The management of the leukemic individual presents a difficult problem. It is always so distressing to tell the patient's wife or husband, or the parents of an afflicted child about it, and there are 10,000 questions to be answered one way or another. Who is the best hematologist in the country? Where is the finest clinic, etc.? Often frightened parents will pick up a child, fly to distant parts of the country, pay a big fee to some specialist and hospital, to gain nothing whatever.

Another thing I would like to stress about the management of leukemia is that the doctor especially should not allow himself to become too greatly excited over the diagnosis. Take it easy, and, if feasible, have a long talk with the patient and, above all, encourage him as much as possible. Have a family conference and tell them the facts. Be as conservative as possible. Unless there is reason to do much, then do little. A good liberal diet, mixed vitamins daily, liver and iron should be prescribed. Keep up moderate exercise, continue work. Arsenic in the form of Fowler's solution is often very efficacious. Usually I recommend starting on one minim, increasing one minim daily up to 10 to 15 minims, then reduced downward, count blood and observe for favorable or *un*-favorable response.

New remedies, such as urethane, should be given only to experimental patients. This drug is contraindicated in acute cases

and will not do the chronic ones much good. Blood transfusions should be performed only when the blood cells and hemoglobin are receding below 75 per cent, or thereabouts. Irradiation is probably the sheet anchor in the therapy at the moment and we are greatly interested in what radiated arsenic might eventually do. Radiation must be given with great caution, carefully controlled blood studies, and given by someone with years of experience in such therapy. X-ray in the hands of any other, directed to a leukemic, is a most dangerous procedure. I know, because I have autospied the results many times. Recently in Boston Dr. Sidney Farber, at Children's Hospital, has treated 15 children with acute leukemia, many of whom were dying. Of those treated, 10 showed favorable reactions and have lived longer than the average time. He was using a new drug called aminopterin, which is injected intramuscularly in doses 0.5 to 1 mg. daily.

We must remember also that leukemia is another very tricky disease, and while we can very nearly anticipate the outcome with a degree of certainty, it is well to hedge on the mortality rates. I recall vividly one patient who came to me with a blood count of 80,000, lymph nodes as large as small lemons, whose family I told hastily, "For Heaven's sake, get her home! She will die in a fortnight." I started my regimen with arsenic included, and in about five weeks she pertly appeared in my office, quite chipper, a blood count 6,000, a transformed woman! I received, incidentally, quite a blasting from the family for scaring them to death. I felt like throwing my books out of my window and going back to the farm where I belonged! Truly, I have never seen such a remission in a patient. She later died.

A word about the leukopenic states (not including the leukopenic types of myeloid leukemia) in regard to the management

of patients who are having to take some of the newer drugs which depress the normal leukocyte count. These are drugs such as some of the sulfa types, and others like iridione dinitrophenol, thiouricil, amidopyrine, etc. I have noted on several occasions that whenever I gave the patient capsules of a formula containing concentrated stomach extract, ferrous sulphate, vitamin B₁ (Thiamin), B₂, and riboflavin, depressed leukocytes tend to return to normal and remain so for quite some time. This observation, I feel, is very encouraging, especially so to the epileptic patients who must take such remedies as tridione, yet the number of my patients has not been extensive enough to demonstrate positively the soundness of my observations. However, there is hope that others will try such formulas and note their results.

In reading this paper you will note that there are other common hematologic problems which have not been mentioned, such as agranulocytosis, purpura, polycythemia vera, hypersplenism, congenital hemolytic anemia, and other conditions. The field is wide, and in closing I wish to emphasize a few impressions and rules that we have tried to follow in managing certain hematologic problems:

1. It is well to bear in mind that many organic diseases, infections, and intoxications, will occasionally produce violent hematologic reactions, therefore it is very difficult to set up the specialty of hematology as one distinct from general medicine. Consequently, every such patient must be thoroughly examined, historically, physically and chemically, to eliminate every contributing possibility.

2. It should behoove one never to make a diagnosis of primary pernicious anemia before positively eliminating cancer of the stomach or colon, and Addison's disease.

3. It is always wise to be hesitant about diagnosing leukemia without an enlarge-

ment of the patient's spleen.

4. In progressive, nonresponding, secondary anemias, we must certainly eliminate bone cancer, especially myeloma, and prostatic cancer; and, in a young person, make special search for duodenal or gastric ulceration, endometriomas, hemorrhoids, and pyorrhea.

5. A diagnosis of Hodgkin's disease demands the elimination of tuberculosis, syphilis, and systemic fungus diseases.

6. I feel very keenly that we must reevaluate our knowledge of pernicious anemia. It is entirely possible that, when achlorhydria occurs, we have reached a late stage of diagnosis!

7. Finally, I feel very strongly that unless one desires to have a diagnosis confirmed or disproved, it seems unnecessary to send patients out of the State of Georgia for the management of Hodgkin's disease and leukemia. At the present time, there is no such person anywhere as a super-specialist in these diseases.

DISCUSSION

DR. W. A. RISTEEN (Augusta): We have been very fortunate to have the opportunity of hearing these three neurologic disorders presented. The individuals suffering from brachial neuralgia due to cervical intervertebral disc lesions are incapacitated because of pain. The importance of symptomatology, the procedure to be undertaken and a discussion of the results have been well brought out in the paper this morning. In a differential diagnosis, the question of anterior scalene syndrome and supraspinatus syndrome should be thoroughly considered.

The cosmetic changes in facial paralysis are always bad. In my experience, a better cosmetic result is obtained using facial splints than has been obtained with the use of anastomosing nerve operations.

Because of my own personal interest in hydrocephalus, the paper of Dr. Dowman was very thoroughly enjoyed. We have been interested in hydrocephalus for some time. It is a most disturbing problem. In a family where there is a sincere desire to raise children, the hydrocephalic child is a tragedy. As far as classification is concerned, I believe one classification is as good as the next and that each classification has its merits. There is one point that will bear repetition. As you will recall, Dr. Dowman on several occasions asked that the head be examined repeatedly. The operative procedures are variable. If one will read the article by Davidoff published several years ago, he will find the various operative procedures that have been thought of and tried, very well outlined. Within the past few years Dr. Peter B. Wright and I have operated upon 16 hydrocephalics with and without meningocele, in whom we could prove that there was a communicating type hydrocephalus. We have

felt that in all these individuals, adequate absorptive spaces must be attained. We have used a retroperitoneal drainage as our method and, at this time, this procedure does appear to have merit. The internal, non-communicating type hydrocephalus is the bugbear and will continue to be so until a more simple procedure is found than any of those now in vogue.

Let us hope that this Association will have a group of neurologic discussions at each of its sessions.

DR. RICHARD WILSON (Atlanta): Dr. Walker has outlined very beautifully the characteristic findings in fairly typical disc lesions. Often, as he said, there is the characteristic crack in the neck, the characteristic point tenderness, the characteristic radiation of pain, and pain increased by head movement. They may be very difficult to diagnose. One thing I have found of value in some of these bizarre symptoms is the use of the starch iodine test for sweating. I have found in some that we get a very definite decrease of sweating over the dermatomes corresponding to the radiation of pain. This adds valuable evidence of nerve root involvement.

As to being the most frequent cause of pain in the cervico-brachial area, that does not conform to my experience. There are many things that cause pain; scalenus anticus, and not to be forgotten is subdeltoid bursitis or involvement of the supraspinatus tendon, and I have found that to be actually the most common cause with typical tenderness over the deltoid and aggravated by abduction and backward rotation of the arm. These have been verified by finding calcification or by their response to deep x-ray therapy. The radiation does not always tell the etiologic factor of the pain.

It is unfortunate that Dr. Smith was not able to complete his paper. He had a good deal to say about Bell's palsy. We are certainly very much in the dark as to efficacy of treatment, and what is the treatment of choice. The more conservative have been salicylates, local heat to the ear area, injections of thiamine, and later on, prostigmine. Others have felt that electric treatment is the treatment of choice. Clinically, the responses are about equal. It is true that the denervated muscles treated with electrical stimulation are going to undergo less wasting than the ones not treated, but, after all, most of these cases with Bell's palsy are going to clear up in a comparatively short time. Herpetic lesions are going to be very slow if they ever clear up.

One thing about the more conservative treatment—prostigmine, thiamine and the salicylates—is that it can be carried out at home. Members of the family can learn to give hypodermics and do it themselves and cut down the cost of treatment. Since the results are about the same, the one most economical would seem the one of choice.

Dr. Dowman and Dr. Risteen brought an interesting paper and talk. One important thing neurologically: we may suspect a condition that indicates surgical intervention, but we hesitate to resort to surgery routinely just because of suspicion. They brought out the importance of a careful recording of observations made at one time, including head measurements. The findings after an interval of one or two months compared with those previously recorded might indicate progress and the necessity for going further with the investigation. That holds true with neurologic investigations generally. A little time, if the condition is not acute, may tell the story and eliminate a lot of investigative procedures.

DR. T. F. SELLERS (Atlanta): Dr. Rice, in giving his paper, mentioned that the birth rate in the State during 1947 was 92,000. He did not mention that it exceeded by several thousand the 1946 rate, which was a previous record. The ratio of births and deaths in

this State is separating very steadily and rather rapidly. I don't know of any solution except that which was suggested in "Facts and Phantasy", published recently under that title by Mr. Adams. If any of you read that story you will appreciate what I am speaking of.

The scarcity of physicians in the rural areas and the sick and inactive, and the decline in the number of midwives, brought about an acute problem of maternal care. As Dr. Rice has stated, however, the midwife nurse, as he described her, is still in an experimental stage. It began as a demonstration and it is still in the demonstration stage. It is probably best not to define its application and utility too closely but continue the trial in various conditions and localities.

It should be emphasized particularly before this group that no State Department of Health nurse midwife project is set up without the approval and invitation of the local medical society.

While I enjoyed Dr. Heyman's paper very much indeed, I am sorry I am not qualified to discuss it and will not take up your time with something I am not qualified to discuss, but I think it was a splendid paper.

In regard to Dr. Norris' very exciting paper, which I regret very much he did not have an opportunity to present in detail, I'd like to mention two points:

First, that in the State Laboratories are outposts for detecting the frequency of hematologic conditions in the examination of hundreds of thousands of blood smears, so the private practitioners can deal with ill patients and occasionally those coming from routine surveys of people not suspected to be ill. We don't pose as hematologists and never attempt, without the assistance of a hematologist, to make any diagnosis of these hematologic conditions we find, but we used to find them and find them very frequently. Now, since we have smaller areas they have dropped down and we don't see them so often.

I would like to add one more point to the fine list of rules that Dr. Norris mentioned, and that is infectious mononucleosis, that is from the Laboratory standpoint. He referred to "Paul-Bunnell" as being very specific. It is if the titer is high. There is, however, a border line in that many normal patients will give you some low titration, perhaps 1:32 or 1:64 taken as border line, in the mononucleosis your titer is going to come considerably above that, but even then you should have the additional hematologic picture of the increase in lymphocytic cells, and especially the increase in the large mononuclear type cells.

Those two things should be used together and, of course, interpreted in the light of clinical findings.

DR. D. F. MULLINS, JR. (Atlanta): I don't feel at all qualified to talk about Dr. Rice's excellent paper on maternity or on the Herxheimer reaction. I have looked through the literature and found the same thing Dr. Heyman describes, but we don't have any good histologic papers on this reaction. It is one that is very difficult to show histologically. I appreciated his excellent paper. Perhaps if we had more time we would have heard more about where these biopsies came from and something about the controls that he no doubt has used in arriving at his findings of the histologic reaction in this condition.

Now in regard to the heterophile test, or "Paul-Bunnell" serum for infectious mononucleosis, there is another condition too, that of serum sickness or serum disease, that I know will keep the heterophile test from being absolutely specific. It is always very gratifying when we have these patients come in and worry about leukemia and enlarged nodes and possibly diphtheria and then the hematologist or technician picks up the atypical lymphocytes that we find in mononucleosis. Then the heterophile antibody test rightly follows as a confirmatory test.

I doubt a little that it could be used as a routine procedure because of the additional cost to the patient. I think it is very wonderful that we have vitamin B₁₂ now because it must be awful to take so much liver in pernicious anemia.

I appreciate the paper very much.

DR. J. W. PALMER (Ailey): I want to discuss the first paper, "Maternity Services in the Rural Areas." I want to thank Dr. Rice for this excellent paper and express my appreciation to the Board of Health for what they have done in the advancement of maternity service in the rural areas during the last several years. I have practiced all my life in the rural territory and we country doctors can deliver a woman as good as city doctors.

I had a charity call to a labor case one night about 12:00 o'clock, four miles out of town in a shanty at a small saw mill. The patient was a very large woman with a presenting child shaking hands with me. The only help present was a colored woman, and the husband. The only light was a small oil lamp. No telephones. My associate was away, but I thought of a doctor from Atlanta visiting his father and I drove my horse and buggy back and he kindly came back with me. I told him to deliver the woman and I would give the anesthetic, since the city doctors were more experienced in this work. This city doctor—he worked and worked, pushed, pulled and twisted and would rest and try again—finally succeeded in delivering a dead baby, but the mother got well.

You know there has been wonderful progress made in this class of work since we have had a Health Department.

I remember when I was in college one of the interns was sent out on a labor case and he stayed out a day and night and on his return the professor asked him how he got along. He said fine, fine. The professor asked, did the baby live? No, the baby died. How about the mother? She died too. But you know the old man fainted and I saved him. I have had experiences that reminded me of this incident.

The progress in teaching medicine has come a long ways. They used to graduate doctors who never saw a labor case until his first one in practice. This doctor who graduated at that time had his first case which was a primipara. It was a long, hard, drawn out case, and finally she was delivered and collapsed and fainted. This was a precipitous case. Water gushed out, the baby rolled out and the afterbirth tumbled out. The frightened young husband said, "Doctor, will my wife live?" The doctor said, "How in the world can she live? Don't you see her bladder is busted and her liver has come out?"

DR. J. W. SIMMONS (Brunswick): I would like to take a few minutes on Dr. Norris' paper only. I promise I will be brief. I want to agree with him particularly on the fact that we have here in Georgia just as good hematologic diagnosticians as there are in the United States. You have standing before you a living monument of it. I have had pernicious anemia for about 14 years. I have had experience in Hodgkin's disease and four different types of leukemias besides purpura hemorrhagica, and I wish to state very modestly too that we had a very efficient technician in our little hospital in Brunswick and she and I classified acute myelogenous leukemia which six months previously had shown purpuric spots. The patient died after having been to Dr. Kracke. Many of those cases are entitled to all the investigation that you are capable of making. We are still in doubt regarding the etiology of leukemias. I am sure we can look toward some reasonable extension of life; and will find a cure for many hematologic conditions just as we find a more efficient control for pernicious anemia than liver

alone. I am sure some of the rest of us want you to hasten research so we country practitioners may receive the benefit of the intelligence of your urban doctors.

DR. BUY V. RICE (closing): I'd just like to thank the doctors for their remarks.

DR. ALBERT HEYMAN (closing): In answer to Dr. Mullin's question, I would like to add that all of the specimens taken for biopsy were either primary or secondary lesions of syphilis. The controls in this study were the pre-treatment biopsy specimens. A group of workers at Johns Hopkins recently performed similar experiments in rabbits and have confirmed our findings.

DR. JACK C. NORRIS (closing): I want to thank the gentlemen for their discussion.

Whenever you have a young person that has an undetermined fever, don't forget to have a heterophile test performed, whether you think it is glandular fever or not. There are many atypical signs of this disease.

There is a new treatment for glandular fever that has proven to be quite good so far. It is pooled whole blood plasma or pooled blood serum. Park and his coworkers say it has a very gratifying therapeutic effect almost immediately.

DR. WILLIAM A. SMITH (closing): I wasn't able to discuss Bell's palsy this morning but that is by far the most common type of facial palsy and aside from cosmetic effects, these patients do suffer with discomfort from sagging of muscles, lacrimation and difficulty in eating. These patients are often told that no treatment is necessary and that recovery will occur, and then some are seen three months to five years later without any recovery or with severe contracture.

I don't think there are any drugs of value and I am strongly in favor of these patients having electrical stimulation until they regain some degree of voluntary movement in order to prevent as much degeneration of muscles as possible; if the muscles degenerate, when the nerve does regenerate, recovery of muscle function is deficient.

Those who have exposed the nerve have found a severe edema, so that the nerve fibers are compressed in the tiny bony canal, which is only a millimeter in diameter.

The otologists have reported good results and in one case, at least, immediate release of contracture on surgical decompression of the nerve. The time as to when this decompression should be done is still unsettled. About 80 per cent of cases make a satisfactory recovery without surgery, sometimes within ten days. Others take three months, but I have seen some at five months without a flicker of voluntary movement. Some otologists are operating at six weeks, others 12 months. If we wait too long, then it is too late. I think we should consider operation when a patient goes three or four months without any sign of recovery.

DR. CHARLES E. DOWMAN (closing): The only thing I'd like to reiterate is, let's measure the heads, measure them on all kids and you will pick up some of these things that we can do something for, instead of not being able to do something for them later.

Dr. Albert Heyman's paper, referred to in the foregoing discussion, was published in the August 1948 number of this JOURNAL.—Ed.

The Medical Association of Georgia will meet in Savannah May 10-13. Have you made your hotel reservations in Savannah?

JAMES LEROY CAMPBELL, M.D.,
F.A.C.S.
An Appreciation

In October, 1891, James LeRoy Campbell matriculated in the Atlanta Medical College and thus began a life of activity that continued, with few vacations, until a coronary attack in the fall of 1947. Nevertheless, in a few weeks he had resumed his accustomed pace; a pace which, unfortunately, proved too swift, for a second heart attack terminated this remarkable career on the morning of June 11, 1948.

Dr. Campbell labored over 50 years as a physician and surgeon in Atlanta. The work he did, both for the rich and poor of this county and State, particularly at Grady Hospital and the Sheffield Cancer Clinic, will be a beacon light to posterity. This was a man of great intellect and sincere convictions. He possessed a keen sense of humor and was a good story teller as well as an attentive listener.

From Dr. Campbell's vast record of achievements, time permits me a review of only a few. In deference to his excellent record as a student, upon his graduation, in 1893, at the age of 23, he became associated with his Alma Mater as a teacher. He aided the Medical School in the Department of Anatomy, as Assistant Demonstrator, while serving his internship at Grady Hospital. His tenacious inquisitiveness and remarkable memory fitted ideally to develop a great surgical anatomist. His accurate knowledge of anatomy explained the delicate ease with which he handled technical problems in surgery. It is no wonder then that he was a pioneer in the field of surgery of the blood vessels. This teaching role continued without interruption, save for time spent in search of more knowledge in New York and in London, until his re-

tirement, as Professor of Surgery, about ten years ago.

Dr. Campbell assisted in improving the hospitals in Atlanta and the State by serving in an official capacity on many of the hospital boards.

He was President of the Fulton County Medical Society in 1925, and much has been recorded in the history of this organization and in the files of the Medical Association of Georgia concerning his achievements. Dr. L. Minor Blackford published a worthy tribute to Dr. Campbell in *The Bulletin* of the Fulton County Medical Society of July 6, 1948. The information contained in that article has been of great value to me in the preparation of this paper.

During his 50 years of service to the community, Dr. Campbell found time to serve his county and State organizations on various committees. Probably no organizational work interested him more than that of the Medical Association of Georgia Committee on Public Policy and Legislation. Here he wielded a powerful influence to bring about medical legislation designed to benefit all the people of Georgia. In 1936 legislation creating cancer clinics in general hospitals was enacted. Dr. Campbell wrote the bill and worked diligently until it was enacted into law. More than 20 years before the passage of this measure, he had realized the necessity for a more serious study of the cancer problem and with the passing years, his interest in, and knowledge of, the subject increased. Nothing seemed to dampen his zeal. Every obstacle in his path apparently inspired him to unlimited vigor for his constant war on cancer.

When the Sheffield Cancer Clinic was founded in 1934 at the Georgia Baptist Hospital, he was named its director. He served this institution with such affection and devotion that his faithfulness stimulated the staff and the visiting physicians to renewed efforts in the early diagnosis and treatment

of cancer.

He wrote many valuable papers on surgical subjects. Few men knew and appreciated medical history more than Dr. Campbell. His last paper read before the Fulton County Medical Society concerned the great men of medicine in Atlanta's history. Scientific articles from his pen appeared in various medical journals, but some of the best were published in *The Journal of the Medical Association of Georgia*. Very nearly all of his published papers of the past decade have dealt with a specific problem of malignancy, although several articles were written at intervals regarding State Aid Cancer Clinics and the programs depicting the work of the American Cancer Society and the Cancer Commission of the Medical Association of Georgia. Dr. Campbell served as chairman of the Commission from 1918 until his death.

A paper entitled, "Basic Principles in the Treatment of Cancer", published in *The Journal of the Medical Association of Georgia* in March 1946, is worthy of careful study. The first paragraph immediately excites one's interest: "The following conclusions are based on observations made during my service as chairman of the Cancer Commission of the Medical Association of Georgia, many years work in the outpatient clinic and wards of Grady Hospital, eleven years as director of the Sheffield Clinic at the Georgia Baptist Hospital and in private practice". The intriguing urge of that paragraph carries you quickly to the next, and on until you have read a paper literally teeming with wisdom.

My acquaintance with Dr. Campbell ("Uncle Jimmy" as he was affectionately dubbed by his friends) goes back to student days when he taught my class surgical anatomy. In the early "twenties" I began to know him better and soon we were warm friends. For more than 15 years we served

together on the Public Policy and Legislation committee of the Medical Association of Georgia. In recent years we have had innumerable informal chats, and I enjoyed every one. His witticisms, his inimitable home-spun philosophy and mimicry, as he related stories of Atlanta's prominent doctors of by-gone days, brightened many occasions for his hearers. Our mutual admiration for his long-time patient, Bishop Warren A. Candler, and his interesting stories of that great churchman; his devotion to the practice of medicine for more than half a century; his fervent interest in the work of the Cancer Commission of the Medical Association of Georgia and his ideas and suggestions regarding its future; his love for God, his family and friends, particularly of the medical profession, bring out vividly the depth of his engaging and lovable personality.

Dr. Campbell enjoyed many honors bestowed by the institutions and medical organizations he served. None, I believe, were appreciated more than the two honors conferred upon him by his colleagues in the Medical Association of Georgia for his outstanding work in the study and treatment of cancer. His name was inscribed on the Hardman Cup in 1937, and at the 1938 meeting he was presented with a silver service bearing this inscription: "In appreciation of his untiring work as chairman of the Cancer Commission of the Medical Association of Georgia for the past twenty years."

Occasionally there arises on the medical horizon a figure whose work is an inspiration to his students, and a challenge to his peers. An individual, who serves others by giving of his strength and of his means, in the great struggle against disease. A stalwart soul, whose keen intellect and burning desire to alleviate suffering, motivates his entire life. A saint, who struggled, despite

the weight of years to carry forward his load, as a Doctor of Medicine healing the sick and comforting the infirm. Of such was Dr. James LeRoy Campbell.

EDGAR H. GREENE, M.D.

EMPHASIZE DIFFICULTY OF ADMINISTERING DIGITOXIN

Digitoxin, a derivative of the foxglove plant, "offers no particular advantage" over digitalis, or foxglove leaf, in treating congestive heart failure, report three New York physicians.

Writing in the October 16 issue of *The Journal of the American Medical Association*, the physicians—Arthur C. De Graff, Robert C. Batterman, and O. Alan Rose, of the Department of Therapeutics, New York University College of Medicine and the Third Medical Division of Bellevue Hospital—say that although digitoxin "fulfills the criteria for a satisfactory preparation of digitalis," difficulties are often encountered in using the drug.

Extreme caution is necessary in administering digitoxin, because the amount of the drug needed depends upon the patient's individual condition, the physicians point out. Administration of an "average" dose may result in incomplete treatment or a severe toxic condition.

STREPTOMYCIN MAY CAUSE MOUTH INFLAMMATION

Streptomycin may cause severe inflammation of the mouth, say Hillel Beham, M.D., and Herbert Perr, M.D., of the Pulmonary Division, Montefiore Hospital, New York.

Writing in the October 16 issue of *The Journal of the American Medical Association*, they report that three patients receiving streptomycin for tuberculosis developed severe mouth inflammation.

The condition healed rapidly in all three patients after treatment with the drug was discontinued, the physicians say, adding:

"The fact that the lesions reappeared promptly on resumption of treatment with streptomycin indicated that the inflammation was caused by the antibiotic."

APPENDICITIS

Deaths from appendicitis have decreased steadily in recent years, but the disease is still common, accounting for about 300,000 operations a year and at least 8,000 fatalities, the Educational Committee of the Illinois State Medical Society observes in a *Health Talk*.

The appendix is a small, apparently useless organ. Jutting out from the beginning of the large intestine, it varies in length, ranging from two to three inches long, though rare specimens up to nine inches long have been found. Normally located in the lower right forward part of the abdomen, it is sometimes displaced from its normal position and may be found nearer the back. When that occurs, the appendicitis patient complains of a back pain instead of the usual distress in the abdomen.

When the organ becomes inflamed, caused by the blocking of the appendix by foreign matter or by infection, there is pain, with nausea or vomiting. The pain may be dull or sharp, the abdomen is sensitive to touch, particularly over the appendiceal area, and the temperature rises. A white blood count shows a great increase in white blood cells, a condition which indicates infection.

Ignorance is responsible for many deaths from appendicitis. Because the pain and distress associated with the disease closely resemble the symptoms brought

on by constipation, patients sometimes resort to laxatives. Laxatives increase peristalsis, the movement by which the contents of the intestine are moved along. This increased pressure may extend the swelling and cause rupture of the appendix, spreading the infection to the peritoneum, the lining of the abdominal cavity.

This condition, called peritonitis, is always dangerous, even though drugs such as the sulfonamides, penicillin and streptomycin have materially reduced the probability of death. If peritonitis occurs, however, the road to recovery is long, because of the rapidity with which the infection spreads throughout the system.

Because modern surgery has yielded improved techniques, the operation to remove the appendix is now done with greater safety than formerly. Indeed, if it is performed early when the symptoms are mild and before complications set in, the patient is frequently walking about the second or third day and back at home within a week.

Prevention of disease is the important factor in its control. While there is no way to prevent appendicitis, serious complications can be averted if the physician is called immediately on the appearance of mild symptoms of gastrointestinal discomfort, soreness of the abdomen or pain, whether it be sharp or dull. It is not wise to ignore recurrent attacks, because the irritation produced by each leaves the appendix more susceptible to the final "blow up," which may result in death.

Some persons may live through life without an attack of appendicitis. Others may develop the condition in childhood.

The first thing to do is call your physician when severe pain appears in the lower right quadrant of the abdomen. Let him decide what the trouble is and what to do about it. Do not take laxatives, cathartics or "physics." Do not apply ice packs or heat to the painful area. Do not rub or massage the abdomen. Do not swallow anything except water until you have consulted a physician.

If your physician decides that an operation is essential, trust him. Ignoring his advice may cost you your life. Once the appendix bursts, the damage caused by spreading infection is more difficult to repair.

THIOCYANATE THERAPY NOT UNIFORMLY GOOD

Use of postassium thiocyanate in treating patients with high blood pressure does not produce uniformly good results, say two Chicago physicians.

Writing in the October 23 issue of *The Journal of the American Medical Association*, the physicians—Donald L. Kessler and Laurence E. Hines of the Departments of Medicine, Northwestern University and St. Joseph Hospital—report that the drug may or may not produce a fall in blood pressure in patients who have hypertension.

There appears to be a narrow margin of safety between therapeutic and toxic doses in some patients, and moderate toxic symptoms are common even when the dosage given is that recommended as "safe," they point out.

The physicians describe three patients who suffered "unusual toxic effects" while receiving thiocyanate therapy for high blood pressure.

HEALTHGRAM

There is apparently no way of predicting the subsequent evolution of the incipient minimal lesion in tuberculosis other than by actual observation of its behavior over a considerable period of time. Neither the age of the patient, nor the location or roentgenological appearance of the lesion, could be regarded as dependable guides for estimating the relative risk of progressive disease.—David Reisner, M.D., Am. Rev. Tuberc., March, 1948.

CANCER COMMISSION, MEDICAL ASSOCIATION OF GEORGIA**CANCER NEWS**

It is quite fashionable nowadays for physicians to enter into great discussions about the "early detection of cancer", and everybody knows that the earlier one establishes the fact that a patient has cancer the quicker good surgery can remove it; thus it goes without saying that we have an excellent background for our general interest in the subject.

However, there seems reason for all of us to maintain a careful skepticism. Doctors, especially good doctors, should always do, as most of them have always done, and that is to accept new methods and new figures about the great discoveries with deliberation and caution.

With those thoughts in mind, we think that it is not amiss to discuss one new method of diagnosis that is receiving a big reception throughout the country. We refer to the Papanicolaou smear from the uterus and cervix. Discussion can well begin here because we know that cervical cancer is most common at this site in women. I recently heard Doctor Papanicolaou present a paper in Chicago in which he summarized his latest results. He presented studies on several hundred patients with an accuracy in diagnosis of 99.9 per cent! Now if we accept his report without question, and we must accept his reputation as a great anatomist, then we must also recognize the fact that he has established a rapid method for detecting certain types of cancer which is well nigh perfect, and, believe it or not, there are very few perfect tests in medicine or surgery.

The danger in Papanicolaou's method, as I see it now, lies in the fact that he is

unable to examine all the smears made over the country. Furthermore we must not forget that he is a master cytologist, and that he has been working at the problem for 25 years, and on that basis the average pathologist would take years and years before he should even begin to state that he is an authority on that technic for diagnosis. Therefore, we insist that we not take the matter lightly, and that the biopsy from the cervix is still tops as a diagnostic process; and not replace our clinical aids, such as a good local examination with a good light, so that one can observe the cervix in every perspective. And we must not overlook the history, which is also very important. All this we shall do, and use the Papanicolaou smear too when necessary, and by combining the two methods we should enhance our diagnostic acumen.

Papanicolaou's method can also be viewed in still another light, in that it may lead to a great advance in cytology. It is not impossible that we may find ourselves in the not too distant future making diagnosis of cancer on the single cell. As a matter of fact, we once well remember seeing a confrere of ours focus his microscope on a single cell from an abdominal lymph node, and did recognize it as a malignant one, later confirmed by finding a small cancer in the patient's colon! However, many of us now living will not live to see this great step perfected. It is indeed for our children to behold.

JACK C. NORRIS, M. D.
Chairman, Cancer Commission,
Medical Association of Georgia.

THE JOURNAL

OF THE

MEDICAL ASSOCIATION OF GEORGIA

478 Peachtree Street, N. E., Atlanta, Ga.

JANUARY, 1949

**AMERICAN MEDICAL ASSOCIATION
ASSESSMENT**

On Dec. 1, 1948, the House of Delegates of the American Medical Association, meeting in St. Louis, voted unanimously to assess each member of the Association \$25. This money will be used to carry on an extensive educational program for the people of this country—to enlighten them regarding the various current proposals to solve various phases of medical care.

All members of the Medical Association of Georgia are members of the American Medical Association. To each of them was sent on Dec. 15, 1948, a letter explaining this problem. All component county medical societies of this Association were requested to collect the money and send it through the office of the Secretary-Treasurer of the Association. Many have done so, and each day other county societies are reporting their progress.

As indicated in the letter sent each member of the Association, the problem is urgent. Needless to say again, prompt action is necessary if we are to do our part in the combined effort to educate the American people regarding the various schemes now promulgated to socialize the medical profession of this country. Certainly, if we are to have any of it, or all of it, be sure that the people themselves understand the various schemes, and let them know that our American Medicine of today is the best medicine practiced in any country of the world.

STATE SOCIETIES ENDORSE**A. M. A. ASSESSMENT**

Many state medical societies have already officially endorsed the assessment of \$25 per member voted by the House of Delegates of the American Medical Association, says an editorial in the December 25 issue of *The Journal of the American Medical Association*.

The editorial follows in part:

"Chief among the subjects discussed by doctors since the interim session of the House of Delegates in St. Louis has been the assessment of \$25 per member voted at that session. Few indeed are adverse comments from members of the medical profession. Most physicians who have expressed their views feel that they want to participate fully in the campaign of education that will be financed by these funds.

"Some few physicians have said that they do not favor the assessment.

"Opposition to the point of view of the medical profession of long standing, such as that from the Committee on the Nation's Health, Senator Murray, Congressman Dingell, and the so-called Committee of Physicians for the Improvement of Medical Care, Inc., might have been anticipated. They are merely running true to form; their strength is but little either in numbers or medical support.

"From many of the state medical societies has come enthusiastic official endorsement of the action taken by the House of Delegates; this has been most heartening to those who will have the burden of determining the actions to be taken.

"The American people have not as yet heard specifically of the purpose for which the funds will be used. Again, as might have been anticipated, some newspapers referred to the assessment as 'war chest,' others as a 'slush fund,' even more as the basis for a vast lobby.

"None of these appellations is justified. As was directed by the House of Delegates,

the special fund will be employed to educate the American people as to the nature of medical practice in the United States, as to the services rendered by the medical profession, and as to the program of the American Medical Association for extending medical research and medical care.

"No doubt all the usual mediums of public education will be utilized. Emphasis will be placed on the ideals of the American medical profession. Certainly the American people should know that compulsory sickness insurance is not a technic for providing free medical care to all of the people but instead a system whereby the workers of the nation are taxed to support a vast bureaucracy which itself will distribute medical care and which will be the intervening agency between the sick and the medical, hospital, pharmaceutical, nursing, and allied professions.

"An educational campaign of the scope contemplated will reach to the very grass roots of the nation. Every physician and every medical organization can aid in this educational project by further interpretation and education of patients and public groups.

"As might also have been expected, because the campaign against compulsory sickness insurance has been going on since 1916, many a medium of public information, many an official of county, state, and national government, many a leader of industry, finance, transportation, and banking has rallied to the cause of the medical profession.

"Many organizations allied to medicine have indicated their firm support of the program of the medical profession and have offered to participate with funds, with speakers, and with their other facilities."

NEW ANTIBIOTIC EFFECTIVE AGAINST SPOTTED FEVER

A new antibiotic drug called aureomycin has proved very effective in patients suffering from Rocky Mountain spotted fever, six physicians write in the December 25 issue of *The Journal of the American Medical Association*.

Their report is based on a study of 13 patients, treated with the drug since June, 1948.

Aureomycin is one of the new antibiotics. It is a golden-colored drug made from the chemicals manufactured by a thread-like mold that belongs to the family that produces streptomycin. Experimental evidence so far shows that the antibiotic possesses antirickettsial activity.

The doctors who made the study are Sidney Ross, Emanuel B. Schoenbach, Frederic G. Burke, Morton S. Bryer, E. Clarence Rice and John A. Washington. They are connected with the Research Foundation of Children's Hospital, Washington, D. C., and the Department of Preventive Medicine, Johns Hopkins University School of Medicine, Baltimore.

"The response of these 13 patients has been impressive, and it is apparent that aureomycin is an effective therapeutic agent," the Journal article says.

Seven of the patients were treated at Children's Hospital, Washington, and one was treated at each of the following hospitals: Georgetown Hospital, Washington; Providence Hospital, Washington; Arlington General Hospital, Arlington, Va.; Prince George General Hospital, Cheverly, Md.; Sydenham Hospital, Baltimore, and Union Memorial Hospital, Baltimore.

Several case reports accompanied the Journal article. In one case, an eight year old boy was admitted to Children's Hospital with the complaint of fever of two days' duration and a rash of one day's duration. Ten days before the boy entered

the hospital, an embedded tick was removed from his scalp. The boy was well until two days before he was admitted to the hospital. His fever fluctuated between 103 and 104 F.

Aureomycin was given within two hours and it was well tolerated by the patient. The temperature returned to normal within three days and remained so during the rest of his stay in the hospital. The rash gradually faded and disappeared entirely by the fourth day of treatment.

In another case, that of a three year old boy, the temperature returned to normal within two days.

In the series of patients treated, the drug was administered for an average period of six days; the shortest period of treatment was four and a half days and the longest was nine days. The doctors stated that more investigation is needed to define the dosage range in order to get the best results.

In all of the patients there was a striking clinical improvement. On admission to the hospitals, the majority of patients were toxic, irritable, anorexic and lethargic. Within 24 to 48 hours after the drug was given, the "children were much more active and alert and showed a return of appetite and interest in their surroundings."

In the past, persons suffering from Rocky Mountain spotted fever were treated with para-aminobenzoic acid.

Aureomycin was found to be superior to para-aminobenzoic acid for several reasons. The temperature response, the doctors wrote, was much more dramatic with aureomycin. The average duration of fever after initiation of treatment with the new drug was two and one-third days. "This," the article says, "is to be contrasted with previous experience with para-aminobenzoic acid, where, in seven patients treated after the seventh day of illness, the average duration of fever following institution of therapy was 10 days."

SENSENICH URGES 9,000 YOUNG DOCTORS TO VOLUNTEER

In a letter mailed recently to 9,000 physicians under 26 years of age, Dr. R. L. Senenich, South Bend, Ind., president of the American Medical Association, strongly urged them to volunteer for military duty.

"The United States must depend on the young physicians who were educated during the war and who have had little or no active military duty to volunteer in this time of the nation's need," Dr. Senenich said. "Thousands of older physicians served voluntarily during the war and the responsibility now rests upon the young men to continue the medical profession's record of service."

Dr. Senenich's letter, which was prepared in cooperation with the Council on National Emergency Medical Service of the A. M. A., follows in full:

"Our country needs doctors for the armed forces. That is why this letter is addressed to you.

"The Selective Service Act of 1948 provides that men between the ages of 19 and 25 inclusive who did not serve on active duty for more than 90 days during World War II, and who are not otherwise entitled to deferment, are subject to the draft. This provision includes physicians as well as other men.

"Many physicians under 26 years of age with less than 90 days active duty in World War II are considering the decision they must make. This letter is sent in the hope that the information and advice offered will help you to make a wise decision.

"The present world situation is such that military preparedness is an absolute necessity. The current expansion of the armed forces together with a proportionate increase in their medical components is therefore inevitable.

"Physicians are to be inducted only to the extent absolutely required and without serious impairment of medical services to the civilian population. To support these aims the American Medical Association recommended that a civilian medical advisory committee be appointed to the Chairman of the National Security Resources Board which is the executive agency of the government charged with advising the President relative to the safeguarding and mobilization of the nation's resources in time of national emergency. The medical advisory committee has been appointed and is now functioning.

"The American Medical Association, the Surgeon Generals of the Army and the Navy, and the Air Surgeon have urged, moreover, that a joint civilian-military medical advisory committee be appointed to advise the Secretary of Defense on matters pertaining to coordination of medical personnel requirements and to other basic medical problems within the services. This

civilian-military committee has been selected and will soon undertake its important duties. Thus you are assured of civilian medical representation, at the highest policy levels of the government, whose aim will be to safeguard the interests of the public, the armed forces and the medical profession. This will be accomplished by securing the most economical and effective utilization of all available resources.

"The medical departments of the Armed Forces are making a sincere and vigorous effort on their part to achieve these aims.

"The medical service corps has been created and expanded, relieving doctors of many administrative duties previously required.

"An additional stipend of \$100 a month is being paid medical officers who volunteer for active duty prior to being called for induction.

"Training opportunities and career guidance plans have been developed.

"Intensified research programs have been activated.

"Numerous other changes have been effected which make service in the medical corps of the Armed Forces a valuable professional experience.

"The acceptance of a reserve commission is evidence of willingness to serve and may be presented to the local board in support of your request for occupational deferment until the completion of your current year of internship or residency. Should you volunteer prior to being called for induction, you may make arrangements with military services to postpone your active duty for a similar period.

"Every effort is being made by the military services, and by the medical profession through its representatives at the highest planning levels to assure: (1) that the minimum number of physicians will be called to active duty; and (2) that professional training will be utilized and advanced to the maximum extent.

"Enclosed is a blank form which you are urged to fill out now and return to this office for processing.

"The United States must depend on the young physicians who were educated during the war and who have had little or no active military duty to volunteer in this time of the nation's need. Thousands of older physicians served voluntarily during the war and the responsibility now rests upon the young men to continue the medical profession's record of service."

THE SPECIOUS CASE FOR SOCIALIZED MEDICINE

Along with the Fulton County Medical Association, we believe the most effective solution to the nation's medical problems lies in voluntary prepayment plans, which already have met with wide acceptance and are increasing in membership each year.

Our objections to the Wagner-Murray-Dingell bill, which will come before Congress again at the next session, are these:

(1) It would concentrate medical care and education into the hands of a single individual, the Surgeon General of the United States, who acts under supervision of the Federal Security Administrator.

(2) A new bureaucracy of some 300,000 employees would be created to administer the act.

(3) It would cost in excess of \$4,000,000,000 annually and would result in a pay roll tax of about four percent of every employee's wages, in addition to present social security taxes and income taxes. A person earning \$1,000 annually would pay \$40; one earning \$2,000 would pay \$80 and one earning the maximum of \$3,600 would pay \$144. Moreover, if two or more in the same family are employed, the tax would apply to each.

(4) National Health Insurance inevitably would result in a deterioration of the quality of medical and dental care. Medical, dental and hospital attention soon would descend to about the same level as that with which most veterans of the recent war are well acquainted.

In addition, the Federal Security Agency, which is promoting socialized medicine, or National Health Insurance, is the most politically minded branch of the Government. Ever since Oscar Ewing has held the post of Administrator it has used Government funds to propagandize in favor of socialized medicine. It has held meetings, organized conventions and generally exerted itself to the utmost, and at taxpayers' expense, to apply pressure upon Congress in an attempt to expand its own authority.

Moreover, most of the arguments about the nation's health presented by FSA are specious and not based upon facts. For instance, it cries that an alarming percentage of those examined for military service in the last war were found physically disqualified. But in its figures it includes those rejected for causes, including illiteracy, feeble-mindedness and a host of other misfortunes. In actuality, only six percent of those rejected for military service were turned down for physical defects that could have been prevented by proper medical attention.

Statistics which the FSA itself issued last July 25 show the nation in the best health ever, and reveal, too, the remarkable strides made in recent years. The life expectancy of a white female child born this year is 70.3 years; of a white male 65.1 years, an increase of one full year over expectancy for those born in 1945 and two full years over those born in the 1939-1941 period.—Editorial—*The Atlanta Constitution*, Dec. 18, 1948.

Have you procrastinated about the \$25 assessment by the American Medical Association? If you have done so, then please show at once your appreciation of what American Medicine has done for you.

THE CHANCES OF LIVING BEYOND AGE 65

Public attention is being increasingly focused on the growing proportion of old people in our population and on the social and health problems which arise out of this trend, said the *Statistical Bulletin* of the Metropolitan Life Insurance Company for October 1943. "A century ago, about one American in every 40 was 65 years or older. At present, one in every 14 is in this age bracket, and the outlook is that the proportion will rise to one in eight well before the year 2000. It is pertinent, therefore, to examine the prospects of additional years of life for those who reach the threshold of old age. The essential data, based upon mortality conditions in the white population in the United States during 1946, are shown in the table

"According to current mortality conditions, more than three fifths of the newly-born white male babies and almost three fourths of the newly-born white female babies will reach age 65. Their chances of living 10 years beyond that age are still substantial. More than one in three of the boy babies and one in two of the girl babies can look forward to reaching age 75. The outlook for a long life is much more favorable now than at the beginning of the century. With the conditions prevailing at that time, only one fifth of the male babies and only one fourth of the female babies would survive to age 75.

"The foregoing discussion was based on a

cohort of babies just starting life. Limiting our consideration to persons who survive to 65 years, we find that three fifths of the men and more than two fifths of the women will live to see their 75th birthday. People at 65, under present mortality conditions, still have many years of life before them. The average white man at that age still has 12 2/3 years remaining; for the average white woman the figure is even greater, namely, 14 1/2 years. This means that the average age at death for white persons attaining age 65 will be not far from 80 years. For the fairly sizable proportion of persons who reach age 75, there still remain, on the average, 7 3/4 years for men, and more than 8 1/2 years for women.

"The fact that so large a proportion of our population now reaches the usual age for retirement and lives well into old age, emphasizes the need to make these years useful and happy. The medical and public health problems of the aged are already receiving consideration in many communities throughout the country. It is well to remember in this connection that the basis of good health in old age is laid during childhood and the early adult years, so that the programs for the aged should be integrated with those for earlier periods of life. In addition, individuals will wisely make financial provisions for an extended period of old age. The Institution of Life Insurance is potent force in making such plans effective."

**EXPECTATION OF LIFE AND CHANCES OF SURVIVAL FOR WHITE MEN AND WHITE WOMEN
AFTER AGE 65. UNITED STATES, 1946**

AGE	CHANCES PER 1,000 OF SURVIVING FROM BIRTH TO SPECIFIED AGE		CHANCES PER 1,000 AT AGE 65 OF SURVIVING TO SPECIFIED AGE		EXPECTATION OF LIFE YEARS	
	White Males	White Females	White Males	White Females	White Males	White Females
65	618	738	1,000	1,000	12.65	14.48
66	596	721	964	976	12.09	13.81
67	573	702	927	951	11.55	13.17
68	549	682	889	924	11.03	12.54
69	525	661	849	895	10.52	11.93
70	500	639	809	865	10.03	11.33
71	474	615	767	833	9.54	10.75
72	448	590	724	799	9.07	10.18
73	421	564	682	763	8.61	9.63
74	395	536	638	726	8.16	9.10
75	368	508	595	688	7.72	8.58

GEORGIA DEPARTMENT OF PUBLIC HEALTH

MANAGEMENT OF ACUTE GONORRHEA

FENWICK T. NICHOLS, JR., M.D.
Atlanta

The treatment of gonorrhea has now become a simple and effective procedure. It is important, however, that an accurate diagnosis be established and that the results of the treatment be determined in each patient.

Diagnosis

The sudden onset of a purulent urethritis or cervicitis is presumptive evidence of a gonococcal infection, but the causative organism should be demonstrated in each patient by examination of smears or by cultures. The presence of typical, intracellular, gram negative, coffee-bean-shaped diplococci in smears of infectious secretions is adequate evidence of gonococcal infection. In the male with a urethral discharge, cultures and smears are of about equal diagnostic value. In women and in the absence of a discharge in the male, gonococci are detected by culture approximately three times more frequently than by the smear alone. The culture is even more valuable in chronic cases or following inadequate treatment. However, examination of smears cannot be omitted, since they may be positive in some cases in the presence of a negative culture.

The gonococcus is a relatively delicate and labile organism. Successful culture depends on careful collection of infectious secretions and adequate precautions to prevent drying. For best results, the material should be transferred directly from the patient to suitable culture media, such as chocolate agar or modified Peizer or McLeod media. If these are not immediately available, the infected material should be placed in a tube of peptone broth or in sufficient saline to prevent drying before culturing. This material should be plated within two hours to prevent overgrowth by other bacteria. Mailing of specimens for culture is frequently unsuccessful because the gonococci die in transit or may be overgrown by other organisms. Some laboratories, however, provide fairly adequate methods for mailing culture specimens. The great disadvantage of culture is that approximately forty-eight hours are usually required for growth of the organism, while examination of a smear requires only a few minutes in the doctor's office.

In making smears of secretions and exudates, a small tightly wound sterile cotton swab or the end of an applicator is used. Bulky swabs

may absorb the major portion of scanty secretions. Poorly prepared smears may be misleading. A uniformly thin smear of the material should be spread on a glass slide and stained by Gram's method. Precautions should be taken to prevent "over-decolorizing" during the staining procedure. If not properly stained, staphylococci and streptococci do not always show a gram-positive stain, may occur in pairs, and may be found intracellularly. Such organisms are easily confused with gonococci.

In the male with acute urethritis, the glans is first wiped clean with dry cotton before collecting the urethral pus. In chronic cases in which there is a minimal discharge or a "morning drop," smears are frequently negative and the diagnosis of gonorrhea may depend on cultures. In such patients the organisms may be found by smears or cultures of the sediment obtained by centrifuging the first few cubic centimeters of voided urine. If gonorrhea is still suspected and organisms cannot be found by the above procedures, prostatic fluid or the sediment of urine voided immediately following prostatic massage should be examined.

In infected females, the secretions of the urethra, endocervix, and Skene's and Bartholin's glands are most likely to contain organisms and these should be cultured and examined by smear. Cultures and smears of the urethra should be obtained whether or not secretions are noted. Digital compression of Bartholin's glands may produce infectious material, and even the slightest secretion from these areas should be examined. The cervix should be examined through a bivalve vaginal speculum which has been previously moistened with water or saline (soap and lubricants have some bactericidal action). The cervical mucus plug is removed and the cervix is then compressed firmly between the blades of the speculum. The secretion of the cervical canal should be collected on a sterile cotton applicator and cultures and smears of this material made. In infected women the gonococcus is often difficult to demonstrate and a minimum of three examinations should be made to rule out gonorrhea.

In children, gonococcal vulvo-vaginitis is often associated with proctitus, and smears and cultures should be made from both areas. Neisserian organisms other than *N. gonorrhoeae* can produce vaginitis in children. A vaginal discharge can also be caused by such conditions as pinworms, foreign bodies, fecal contamination, etc.

Treatment

Before undergoing treatment, the patient should be advised that therapy may be useless if the marital partner or sexual contact has the

From the Clinic of Genitoinfectious Diseases, Grady Memorial Hospital; the Department of Medicine, Emory University School of Medicine; and the Georgia Department of Public Health.

disease and is not treated simultaneously. The doctor should make a sincere effort to have these individuals examined or should submit their names to the local health department. Even if smears and cultures are negative in patients who have been sexually exposed to gonorrhea, they should nevertheless be urged to accept treatment with penicillin. Since penicillin therapy is nontoxic and effective from both a prophylactic and therapeutic standpoint, such treatment is advisable on presumptive evidence only.

The gonococcus is highly susceptible to penicillin and the treatment of most patients is simple and efficacious. In uncomplicated urethritis in the male, procaine penicillin is recommended as a rapid and effective therapeutic agent. A single dose of 300,000 units (1 cc.) intramuscularly is usually all that is necessary. In the female, 600,000 units should be given for the treatment of simple gonococcal urethritis or cervicitis. This larger dose is recommended because it is more difficult to be certain of cure in women. Proportionately smaller doses can be used in children, i.e., 100,000 to 200,000 units. Patients with epididymitis, acute pelvic inflammatory disease, Bartholin gland abscesses or ocular manifestations, etc., may require repeated daily injections of penicillin procaine in addition to supportive measures. In the usual case of gonococcal urethritis there seems little reason for using intermittent injections of aqueous penicillin. If aqueous solutions of penicillin are employed, a minimum of 4 to 6 hours of therapeutic blood levels are necessary. Several satisfactory schedules are recommended. Injections of 20,000 units of penicillin every 2 hours for 5 or more doses usually produce satisfactory results. A shorter period of treatment, utilizing 50,000 units intramuscularly, followed in 1 hour by 50,000 units and in 2 hours by 100,000 units, is equally effective. These treatment schedules, as well as the use of procaine penicillin, produce cures in 90 per cent or more of patients with early gonorrhea.

The symptoms of urethritis usually disappear within two to three hours following treatment and the majority of male patients become clinically well within two days. A slight watery or mucoid urethral discharge may appear soon after the administration of penicillin and may continue for one to three weeks. This usually disappears spontaneously within a few days but may be prolonged by repeated stripping of the urethra. Within a few hours after penicillin therapy the gonococcus cannot be cultured from the urethral exudate and may exhibit degenerative changes on smear. A similar watery or mucoid secretion also appears in females and may persist for several weeks following treatment.

If gonococci are found in this discharge or if a purulent exudate appears, re-treatment with larger doses of procaine penicillin is indicated.

In the male the presence of urethral strictures, prostatitis, seminal vesiculitis, or a walled-off abscess should be suspected if penicillin fails to produce a satisfactory response. The cautious use of bougies and/or sounds may be indicated in cases suspected of having poor drainage. There have been no true cases of penicillin resistance. Patients who were thought to be penicillin-resistant, have responded almost invariably to larger doses of penicillin. Many of the patients who have failed to respond to penicillin have been found to have re-infections or a non-specific type of urethritis. Although no one organism has been consistently isolated from patients with a persistent, non-specific urethritis, streptococci, staphylococci, diphtheroids, pleuro-pneumonia organisms and viruses have been suspected as the etiologic agent. Other causes of a persistent urethral discharge in the male are Reiter's disease, trichomonal infections, tuberculosis and other infections of the prostate and seminal vesicles, tumor of the bladder, intraurethral chancroid, fungus and parasitic infections, chemical or mechanical trauma, and foreign bodies.

Following therapy, negative smears and cultures for gonococci should be obtained at weekly intervals for at least three weeks to be certain that a cure has been attained. In the male, any persistent urethral discharge should be examined. If no urethral secretion is present, the sediment of several urine specimens should be cultured and smeared. If these studies are negative and there is no clinical evidence of infection three to four weeks after treatment, the patient has probably been cured. Some workers have advised that a final test for cure should consist of culture of the sediment of a urine specimen obtained following prostatic massage or urethral dilatation. There seems to be little indication for these procedures in most cases.

In the female, tests for cure should consist of absence of symptoms and at least three negative cultures of the urethra and cervix over a period of three to four weeks.

In the treatment of gonorrhea there is no place for oral administration of penicillin, the use of penicillin locally, or in the form of suppositories, since an adequate and effective dose of the drug can be administered by a single injection of procaine penicillin.

Streptomycin in doses of 0.3 grams to 0.5 grams, given in a single intramuscular injection, has also been found to be curative for gonorrhea. It is not advised unless penicillin fails to produce a cure after a reasonable trial.

Sulfadiazine should be used in the treatment of gonorrhea in the presence of genital lesions the etiology of which is unknown. Penicillin should not be administered in such cases, since it may delay the diagnosis of early syphilis by causing the temporary disappearance of *Treponema pallidum* from the lesion. Sulfadiazine

is the least toxic of the sulfonamides and is preferred. A daily dose of 4 to 6 grams of the drug for 5 to 8 days is adequate in most cases of gonorrhea. Sodium bicarbonate should be given concomitantly and, in addition, a daily intake of 3000 cc. of fluid is advised. The results achieved with sulfonamides are not as good as those attained with penicillin and produce cures in approximately 70 to 80 per cent of patients.

At the first visit a careful examination should be made of the genito-anal area, mouth, eyes, skin and lymph nodes for evidence of syphilis or other venereal diseases. Blood should also be taken at this time for a serologic test for syphilis and such tests should be repeated each month for four months following treatment. The patient with gonorrhea may have acquired syphilis simultaneously, but the existence of this disease may be masked by penicillin therapy. If chilly sensations, fever, or other manifestations of a Herxheimer reaction develop following treatment, syphilis should be suspected and a more intensive search for evidence for this disease should be made.

It has been shown experimentally that the use of oral penicillin may be an effective prophylaxis against gonorrhea when given in a single dose of 250,000 units 2 to 6 hours after exposure.

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DOCTORS SAY PUBLIC BECOMING MORE CANCER CONSCIOUS

The public generally is becoming more cancer conscious, two Louisville, Ky., radiologists conclude in a study reported in the current issue of *Radiology*, published by the Radiological Society of North America.

Drs. Joseph C. Bell and James B. Douglas state in the Journal *Radiology*, which is published primarily for physicians who specialize in x-ray, that "for many years physicians have taught that the only hope of control or cure of cancer and allied malignant lesions lay in early diagnosis and adequate treatment."

"This teaching," they add, "is bearing fruit and the public in general is becoming cancer conscious. In the past, many patients having cancer were first seen by a physician from six months to one year from the onset of symptoms. All too often the lesions were far advanced and the possibility of protracted arrest, or cure, was remote."

"Ten years ago we seldom saw a carcinoma (cancer) of the left half of the colon without a high degree of partial obstruction; but during the past three years this rarely has been true. At present it is not at all uncommon for a patient to report for examination with symptoms of less than one month in duration."

The two doctors said in their article that since patients are being seen much earlier in the course of their disease, the difficulties in diagnosis have correspondingly increased. They said that when the disease is in the far-advanced stage the diagnosis, of course, is obvious, but when it is in the early stages

"the problem of diagnosis is very different and may challenge the ingenuity even of the most highly trained and widely experienced examiner."

"Cancer of the colon and rectum can be controlled or totally eradicated only if discovered and treated appropriately," the doctors conclude. "In the analysis of a large series of cases it has been found that slightly more than 50 per cent of those with lesions proved to be operable are living and free from demonstrable cancer at the end of five years. If the diagnosis can be made before lymph node involvement takes place, we can anticipate an increase of at least 10 per cent in those well at the end of five years. In cancer of what other organ can better results be shown?"

M.D.'S EXPENSES RISE 40 PER CENT

The average independent physician in 1947 spent \$2,000 more to practice than he did in 1943, a jump of 40 per cent. During this same interval, his net income increased only 23 per cent, according to *Medical Economics*, the national business magazine for physicians.

William Alan Richardson, the magazine's editor, noted that non-salaried doctors' professional expenses averaged \$7,200 last year. This sum was triple the average amount spent in 1935 (\$2,523), and double the 1928 average of \$3,523. Mr. Richardson pointed out.

In a breakdown according to geographic areas, Mr. Richardson revealed that physicians in the Far West had the highest average professional expenses. In spite of that fact, he added, their net income topped that of doctors in other regions. Operating costs were lowest in New England and the Middle Eastern states, (including New York). So were the average net incomes of the doctors in those areas.

The survey disclosed that expenses of the average low-income doctor were relatively much higher than those of the high-income physician, ranging from 53.9 per cent of gross for the former to 36.8 per cent of the gross for the latter.

MEDICAL COSTS NOT RISING WITH COST OF LIVING

Fees charged by physicians for medical services have not risen as rapidly as the cost of living, according to a study just published by Frank G. Dickinson, Ph.D., director of the Bureau of Medical Economics Research of the American Medical Association.

Entitled "Comparative Increases in the Costs of Medical Care and Cost of Living," the report made use of the price indexes compiled by the United States Bureau of Labor Statistics. A four-page bulletin containing figures and charts, supports his conclusions.

The Bureau of Labor Statistics Index, covering cost of living in 34 cities, was 59 per cent higher in 1947 than in the base period of 1935-39. The bureau's 1947 index for all medical care, including drugs, was only 32 per cent above the same base period. In addition, the quantity of medical care received by the American people was estimated to have increased more than half again what it was in 1939.

Dr. Dickinson's newest study is the second made within a year. In 1946 he published a report entitled "Is Medical Care Expensive?" In this 12-page booklet he showed that medical care items as a whole cost the American people over five and a half billion dollars in 1946, but that this still represented only 3.9 per cent of the total personal consumer expenditures of the American people. Physicians received only 26 per cent of all the dollars spent for medical care in 1946.—Michigan State Medical Society.

WOMAN'S AUXILIARY TO THE MEDICAL ASSOCIATION OF GEORGIA

AUXILIARY PRIVILEGES

Your invitation to speak at this time is sincerely appreciated.

This year, as I assume the presidency of the Medical Association of Georgia, I feel very keenly the responsibility of the office as I discuss with you some of the privileges that I believe are yours.

From its inception your organization has done an excellent job. The interest which you have manifested in the Auxiliary's objectives and the seriousness with which you have endeavored to carry on has been, and continues to be, most gratifying.

No group of women is better qualified for service to a community. From pioneer days the doctor's wife has cared for her husband, nurtured their children and prescribed for ailing friends while her physician-husband has journeyed through the backwoods ministering to the sick. As the Nation's educational economic status improved, the doctor shared in the development, and his wife continued to render unselfishly every possible assistance in the long hard fight against ignorance, poverty and disease.

With our generation came the birth of the Woman's Auxiliary and with its gradual growth there has arisen a powerful group, united in its objective to carry on the laudable work of health education. On every occasion, when speaking before the Auxiliary, I have devoted much of my allotted time to this subject and I cannot forego this opportunity of bringing it again to your attention.

When discussing health education in lay meetings, I think we should have this very definite objective: To instill in the minds of all the people the meaning of health and its value.

The words "health" and "educate" are so commonplace, I wonder if we ever pause to consider their meaning. The formal definition of health is "the state of being whole: sound or whole in body, mind or soul; hale: well-being, especially the state of being free from physical disease or pain". To educate means to develop or to cultivate an individual physically, mentally and morally. To expand, strengthen and discipline his mind. To lead him forth or to rear him (to bring up a child). To educate the individual means to form and regulate his principles of character and to prepare and fit him for any calling or business by the systematic process of instruction.

With these fundamental principles in mind I think you should enlist the aid of other enlightened citizens so that your teaching may reach more people in a shorter period of time.

And these people are usually the teachers in public and private schools and Sunday schools, ministers, Y.M.C.A., Y.W.C.A., and civic club leaders.

Impress upon them that Health Education is a community responsibility. It is not exclusively the physician's duty nor that of the Auxiliary. We should arouse the public to the necessity for an active program that will encompass the entire State and every child will grow up more health conscious than the preceding age group.

Let me enumerate briefly several modes of imparting information:

1. Health forums.
2. Good speakers before civic groups; church groups: P.T.A. meetings, industrial workers. (Each county Auxiliary could establish a speakers' bureau composed of those members gifted in public speaking).
3. Attractive radio programs.
4. Visual education; motion pictures; graphs; placards and posters.
5. The press, especially the weekly newspaper. Publish the information that any interested group can be supplied with some type of health education feature on call.
6. Remember to provide instruction for Negroes: disease spreads rapidly in slum areas and among the undernourished and those who have little or no knowledge of sanitation and hygiene. There are no boundary lines.
7. Instruct food handlers and restaurant operators. Insist on clean, wholesome food prepared in spotless kitchens and bakeries.
8. Impress on your hearers the value of pure water and milk: create within them a desire to investigate the source of supply of these essentials. And point out the value of pasteurization of good milk and the fallacy of pasteurization of dirty milk.

I have been honored by invitations to several auxiliary meetings and on each occasion have expressed an appreciation of your efforts over the years in helping the Medical Association of Georgia in its long-range program of health education. You have aided, beyond measure, the Association's struggle to bring about better care for the sick and infirm in Georgia. The suggestion is made that you re-emphasize in lay meetings a program of health education somewhat along the line outlined above, under the direction of the Medical Association of Georgia. I have appraised your good deeds in preparing delightful social functions and have shared in the good fellowship you have created.

The Auxiliary's work in presenting to the present generation, and preserving for posterity, the history and romance of medicine and the establishing of a day to honor your husband's profession, is most commendable and is profoundly appreciated by our Association. (All

of these things were enumerated by me in my report to the House of Delegates at this convention). It is fitting that the day Dr. Crawford W. Long first used ether as an anesthetic agent was selected for the annual Doctors' Day celebration. It is not surprising that this plan was conceived and developed by the gracious and lovely ladies of the South, for they were born and nurtured in the land of chivalry, and the spirit of romance pulsates with each heart-throb and urges them to record for all time the thrilling history of Southern Medicine.

In conclusion, I would suggest to you a continuation and an intensification of your excellent program directed by these three objectives:

1. Health education.
2. Good fellowship and happiness in the Auxiliary and the Medical Association of Georgia.
3. An intensive study and recording of the history of medicine in Georgia.

I firmly believe that the coming year will be a most interesting and profitable one.

So often we automatically say to a friend that we wish him health and happiness, as in pledging a person a toast. If we think along this line seriously and strive to make every citizen healthy, then happiness will surely follow. And so with Shakespeare I say to you, "Come love and health to all".

EDGAR H. GREENE, M. D.

AUXILIARY NEWS

To All Members:

It is with delight that I extend personal greetings and wish you a Happy New Year.

With the unstable times, it seems more than anything else, the world needs the healing influence of a great surge of simple kindheartedness, to rid humanity of jealousy, selfishness and greed. Such a surge must start with us, as individuals; it is beyond the power of the world's rulers or statesmen. In our daily living we average citizens must establish the spirit and set the pattern of a kindlier world.

Time is at hand when we must exert our efforts to action against nationalization of medicine. The American Medical Association reaffirms its belief in the application of the principle of medical care insurance on voluntary prepayment plans. Coverage is now provided throughout the country, and protection is being extended rapidly to an ever-increasing proportion of our population.

When you write to your Congressmen on pending legislation of vital interest to the medical profession, do it right. Here are ten tips as prepared by the United States Chamber of Commerce:

1. Address him as The Honorable _____, M. C. (for Member of Congress) or U. S. S. (for U. S. Senator)—and be sure of who is what. Address Senators, Senate Office Building,

Washington, D. C., and Representatives, House Office Building, Washington, D. C.

2. Be local: Tell him how a national question affects your business, your industry, your community.

3. Be business-like: brief but not terse.

4. Be specific; if you're for something, say so. If not, don't hedge.

5. Be polite; Congressmen deserve dignified treatment.

6. Be reasonable: seek only possible things.

7. Be yourself; use your own letterhead and letter style.

8. Request action; your man is elected to do something.

9. Ask for an answer; you've told him where you stand; now ask him where he stands.

10. Be appreciative; thank him for good votes, compliment his better speeches, and praise his staff too.

Let me urge every member to become well informed, think upon the problems involved and, most important, act. Remember our theme for the year: "*Learn, Think, and Act.*"

MRS. SAM ANDERSON, *President
Woman's Auxiliary to the
Medical Association of Georgia.*

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At the meeting of the Woman's Auxiliary to the Richmond County Medical Society, Major General R. O. Barton spoke on what Clark's Hill will mean to Augusta. He was introduced by Mrs. Robert C. Major, president.

Miss Terence Battey spoke to the Auxiliary on the need for Grey Ladies at the veterans' hospital.

The Auxiliary, headed by Mrs. R. E. Leonard, will fix up their doctors' room. It was announced that Mrs. Lucian Todd was preparing a handbook for the organization.

Mrs. W. W. Battey, Jr., was elected chairman to send a camellia plant to the State Hospital at Milledgeville.

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The Carrollton - Douglas - Haralson County Medical Auxiliary had a luncheon meeting at the home of Mrs. D. S. Reese. Mrs. Reese was assisted in entertaining by Mesdames H. L. Barker, E. V. Patrick and S. F. Scales, all of Carrollton. Mrs. R. L. Berry, Jr., of Villa Rica, president, presided over the business meeting. Mrs. Ernest Powell, Sr., of Villa Rica, gave the program. Three new members were added: Mrs. E. C. Bass, Jr., Mrs. E. V. Patrick, of Carrollton, and Mrs. Taylor of Bowdon. Mrs. O. D. King of Bremen was a visitor.

Officers of the Auxiliary are: Mrs. R. L. Berry, Jr., Villa Rica, president; Mrs. W. P. Downey, Tallapoosa, vice-president; Mrs. S. F. Scales, Carrollton, secretary, and Mrs. J. W. Watts, Bowdon, treasurer.

MRS. CLIFTON G. KEMPER, *Chairman
Press and Publicity.*

COMMUNICATION

To All Essayists of the Medical Association of Georgia, Atlanta Session, 1948:

You delivered a creditable essay before the annual session of the Medical Association of Georgia at its 1948 annual session. If you consider your essay eligible for any of the prizes offered by the Association, and awarded by the Awards Committee, will you please send five copies of your essay to Dr. William R. Dancy, 102 West Jones Street, Savannah, chairman of the committee, or to Dr. Edgar D. Shanks, Secretary of the Association, 478 Peachtree Street, Atlanta? You are urged to do this promptly, in order that the committee may have ample time to study the essays.

The prizes offered are the Crawford W. Long Memorial Prize, given for original work in any field of medicine and presented before a session of the Association at its annual convention. The essayist must be a member of the Association in good standing. There is also a prize for outstanding work on hookworm diseases, performed at any time. The Hardman Loving Cup is a prize presented to a member of the Association who has done, in the opinion of the Awards Committee, outstanding work which has redounded to the benefit of the Medical Association of Georgia.

WILLIAM R. DANCY, M.D., *Chairman*
Awards Committee.

NEWS ITEMS

Dr. Sam Anderson, Milledgeville, was recently named superintendent of the State Hospital, Milledgeville, succeeding Dr. Y. H. Yarbrough, who requested that he be relieved of his duties and responsibilities of superintendent. Dr. Yarbrough will continue to serve as the senior consulting physician. Dr. Anderson has been a member of the staff of the hospital for the past 13 years. He went to Milledgeville as health officer following his graduation from Emory University School of Medicine, Atlanta, and did private practice before joining the hospital staff.

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Dr. John M. Anderson, a native Georgian, was recently named clinical director of The Menninger Clinic, Topeka, Kan. Dr. Anderson graduated from the University of Georgia School of Medicine, Augusta, in 1938, and served on the staff of the State Hospital, Milledgeville from 1940-45. He later joined the U. S. Public Health Service Hospital for narcotics at Lexington, Ky. Kansas is already widely regarded as the home of psychiatry in the United States and The Menninger Clinic, under the direction of Dr. Anderson, has a unique chance to become a model center of psychiatric treatment and training.

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The Baldwin County Medical Society recently held its annual election of officers at the State Hospital, Milledgeville. Dr. Sam Anderson was elected president; other officers elected were: Dr. Robert Crichton, vice-president, and Dr. M. E. Smith, secretary-treasurer. All new officers of the society are on the medical staff of the State Hospital, Milledgeville.

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Dr. William Osler Bedingfield, Savannah physician and surgeon, has been made a fellow of the American College of Surgeons. A graduate of the University of Georgia School of Medicine, Augusta, Dr. Bedingfield served his internship at the Warren A. Candler Hospital, Savannah. He has been practicing medicine for the past 15 years. He was elected president of the First District Medical Society last February.

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Dr. R. L. Bennett, director of physical medicine at Warm Springs, told a large audience at a meeting held recently at Armstrong Junior College that there is no medical news about the search for cures and pre-

ventives of infantile paralysis. He said the principal improvement in polio in recent years has been in the treatment of patients who have recovered from the disease, but not the effects. The program was presented by the Chatham-Savannah Health Council, under the leadership of Dr. Ruskin King, Savannah, president. Mr. Arthur Gignilliat, chairman of the education committee, introduced the speaker at the meeting.

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The Bibb County Medical Society held a special meeting December 20 at the State Board of Health Building, Macon. Prepayment medical care plans were discussed. Dr. A. M. Phillips, secretary.

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Dr. Enoch Callaway, LaGrange, attended the annual meeting of the American Cancer Society in New York City, November 4-7. Dr. Callaway is chairman of the Georgia division of the society and is director of the West Georgia Cancer Clinic.

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Dr. George H. Collins, a native of Kansas City, Mo., announces the opening of his office in Lumber City for the practice of medicine. Dr. Collins graduated from George Washington University School of Medicine, Washington, D. C. He served his internship at Gallinger Municipal Hospital, Washington, D. C., and his residency in internal medicine at the University Hospital, Little Rock, Ark. He received post-graduate training in diseases of the heart and vascular system; was medical officer at Veterans Administration Hospital, Fort Roots, Little Rock, Ark., and served in the United States Army 1943-46.

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Emory University School of Medicine, Atlanta, recently presented its second post-graduate course in cardiovascular diseases at the auditorium of Grady Hospital. Physicians from all parts of the United States and Canada attended. Purpose of the course, according to Dr. Russell H. Oppenheimer, Atlanta, Emory's director of post-graduate medical education, was to present the most recent advances in studies of diseases of the heart and blood vessels. There were 24 lecturers, all but two of them members of the faculty of Emory University School of Medicine. The two guest lecturers were Dr. Eugene A. Stead, Jr., professor of medicine at the Duke University School of Medicine, Durham, N. C., and Dr. Richard L. Riley, research associate of Columbia University College of Physicians and Surgeons, New York City.

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Dr. Murdock Equeen, Atlanta, took office as president of the Ear, Nose and Throat Section of the Southern Medical Association at the recent meeting held in Miami, having been elected a year previous.

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The Fourth District Medical Society held its dinner meeting at the Country Club, Newnan, December 15. Talks were made by Dr. Edgar H. Greene, Atlanta, president of the Medical Association of Georgia; Dr. Enoch Callaway, LaGrange, president-elect of the Medical Association of Georgia, and Dr. Edgar D. Shanks, Atlanta, secretary-treasurer, Medical Association of Georgia. Scientific program: "Medical Management of Duodenal Ulcer", Dr. McLaren Johnson, Atlanta, who was introduced by Dr. J. O. St. John, Newnan, and "Endocrine Therapy in Gynecology", Dr. John P. McCain, Atlanta, who was introduced by Dr. Henry D. Meadows, Newnan. Dr. David Henry Poer, Atlanta, attended the meeting.

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The Georgia Medical Society, the oldest medical society in the State, held its anniversary meeting at the auditorium of the Warren Candler Nurses' Home, Savannah, December 14. Dr. Stephen J. Lange, secretary.

Dr. W. D. Jennings, Augusta physician, was elected mayor of Augusta December 1. He won by a majority of 1,103 votes. Dr. Jennings served as Augusta's chief executive from 1931 to 1934.

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Dr. Steve P. Kenyon, Dawson physician and past president of the Medical Association of Georgia, was guest speaker at the Rotary Club meeting at Cuthbert. Dr. Kenyon outlined State Health measures to be recommended to the 1949 Georgia General Assembly. Growth of the overall program was described by Dr. Kenyon, and the need for more doctors in rural areas stressed.

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The Thomas P. Hinman Mid-Winter Clinic will be held at the City Auditorium, Atlanta, March 21, 1949. Program: "The Treatment of Acute Leukemia with Particular Reference to Aminopterin", Dr. Roy Kracke, Birmingham, dean of the Medical College, University of Alabama, and "The Growth and Development of the Human Skull From Before Birth to the age of 65 years", Dr. Spencer R. Atkinson, Los Angeles, University of Southern California School of Medicine. Dr. Atkinson has accumulated approximately 2,500 skulls and will exhibit a number of these specimens. The committee invites the medical profession to attend the above lectures at 10 a.m. March 21, at the City Auditorium.

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Dr. Milford B. Hatcher, Macon surgeon and member of the surgical staff of Macon Hospital, was recently made a member of the International College of Surgeons by the executive council of the United States chapter in St. Louis. The organization was founded in Geneva, Switzerland, and its members include the top surgeons in almost every country in the world. Membership is restricted and Dr. Hatcher is one of less than a dozen Southern surgeons to have been chosen for membership. He is a graduate of the University of Georgia School of Medicine, Augusta, and interned at University Hospital, Augusta, where he served as resident surgeon. During World War II he served in the U. S. Army with the rank of lieutenant-colonel. He is a diplomate of the American Board of Surgery, a fellow of the American College of Surgeons, and of the Southeastern Surgical Congress.

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Dr. Edgar C. Holmes, a native of Moultrie announces the opening of his office at 223 South Main Street, Moultrie, for the practice of medicine and surgery. He graduated from Emory University School of Medicine, Atlanta, and spent two years in the Medical Corps of the U. S. Army, during which time he was chief surgeon at Fort McPherson. Following his release from the Army, Dr. Holmes spent six months as surgical intern at Charity Hospital, New Orleans.

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Dr. John Couper Howard, Savannah, announces the opening of his office at 27 East Jones Street, Savannah, for the practice of internal medicine. Dr. Howard is the son of Dr. and Mrs. Lee Howard of Savannah, and graduated from Duke University School of Medicine, Durham, N. C., in 1943. He served his internship at Reading General Hospital, Reading, Pa., and was on active duty with the U. S. Army for a period of three years, being discharged in 1946 with the rank of major. For the past two years he has served as resident physician of the Central of Georgia Hospital, Savannah. Dr. Howard is commanding officer of the medical detachment of the 118th F. A. Battalion.

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Dr. R. V. Martin, Savannah physician, has been appointed to direct the industrial program of the Chattooga-Savannah Tuberculosis and Health Association, Savannah.

Dr. John M. McGehee, Cedartown physician and surgeon, has been named president of the Kiwanis Club of Cedartown. He is a graduate of Mercer University, Emory University, and Tulane University of Louisiana School of Medicine, New Orleans. During World War II he was stationed in Paris, France, as an Army surgeon, and held the rank of captain.

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Dr. Spurgeon Hart Neel, Jr., Hiawassee, announces the opening of his office in the old Post Office Building, Hiawassee, for the practice of medicine. Dr. Neel graduated from the University of Tennessee College of Medicine, Memphis, in 1942.

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Dr. William L. "Buck" Pressly, of Due West, S. C., who received his medical degree from Emory University School of Medicine, Atlanta, in 1912, was named the family doctor of the year by the American Medical Association in St. Louis, December 2. Dr. Pressly received the Association's gold medal, known as the general practitioner award, on his sixty-first birthday. Congratulations, Buck!

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Dr. A. W. Rehberg, Cairo physician and surgeon, recently addressed the Cairo Rotary Club. He discussed "The Several Legs Supporting a Human Being's Higher Self." Dr. Rehberg described the "legs" as the psychic or emotional, the vocational, the recreational, the spiritual—all of course dependent on the physical. He told of how a physical trouble, or break down, affects all of the others and of how they all are closely related to each other in determining just what the person's higher-self will be.

* * *

The South Georgia Medical Society members were guests of the Cook County physicians at a banquet held at the new home of the Veterans of Foreign Wars, Adel. Twenty-four physicians and surgeons were present. Dr. F. N. Clements, Adel, president of the society, presided. Dr. A. J. Little, of Valdosta, spoke on "Cancer Research." Dr. C. W. Ketchum, Valdosta, is vice-president and Dr. Harry Mixson, Valdosta, is secretary-treasurer.

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The Georgia Radiological Society held its meeting at the Hotel Dempsey, Macon, November 20, with Dr. Max Mass, Macon, vice-president, as host. Dr. Robert B. Taft, Charleston, S. C., professor of radiology at the Medical College of the State of South Carolina, was guest speaker. He addressed about 40 physicians from throughout Georgia whose work is concerned mainly with x-ray diagnosis and the use of x-ray and radium in the treatment of disease. Dr. Taft, a leading authority on radioactivity, is chairman of the committee on radiation protection of the Radiological Society of North America. He has made important contributions in the mechanical improvement and practical application of the Geiger counter. This is an extremely sensitive apparatus for locating radioactive substances. The device has been used for locating lost or stolen radium, but now has much wider application in the detection of radiation due to atomic blast.

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The Association of Seaboard Air Line Railway Surgeons held its forty-sixth annual convention in St. Petersburg, Fla., November 16-18. Dr. Jabez Jones, Savannah, is president. Dr. J. K. Quattlebaum, Savannah, presented a paper entitled "Internal Fixation and Early Ambulation in the Treatment of Fractures of the Femur."

* * *

Dr. W. G. Simpson, formerly of St. Petersburg, Fla., announces the opening of the Community Medical Center at Tate. Dr. Simpson is a native of Atlanta, and graduated from Emory University School of Medi-

cine, Atlanta. He served his internship at St. Joseph's Infirmary, Atlanta, after which he entered the U. S. Public Health Service. The Community Medical Center building is modern in every respect, being fully equipped with an office for a dentist as well as complete facilities for the operation of a small hospital.

* * *

The Southeastern Regional meeting of the American College of Physicians was held at the Academy of Medicine, Atlanta, December 4. Dr. William R. Minnich, Atlanta, presided at the morning session and Dr. Vernon E. Powell, Atlanta, presided at the afternoon session. Participating governors were Dr. E. Dice Lineberry, Birmingham, Alabama; Dr. William C. Blake, Tampa, Florida; Dr. Robert Wilson, Jr., Charleston, South Carolina; Dr. Jose J. Centurion, Havana, Cuba. Dr. Carter Smith, Atlanta, is governor of Georgia. Guests were Dr. Walter W. Palmer, New York City, president; Dr. James Edgar Paullin, Atlanta, past president, and Mr. Edward R. Loveland, Philadelphia, executive secretary. Atlanta physicians reading papers were Drs. Paul Beeson, Walter H. Cargill, David James, Heinz Weens, James Warren, Osler Abbott, Arthur Merrill, and William A. Smith. Dr. Walter Bauer, Boston, was guest speaker. Committee on arrangements: Drs. Wm. R. Minnich, chairman, Paul Beeson, Carter Smith, Vernon E. Powell, and Charles F. Stone, Jr., all of Atlanta. The meeting was closed with a banquet at the Biltmore Hotel.

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Dr. Henry Steadman, Hapeville physician and surgeon, recently spoke to the Hapeville Exchange Club. Dr. Steadman told the group of the advancements made by surgery in recent years, and showed colored movies of a surgical operation and of new horizons in medicine.

* * *

The Regional State Health Center of Albany was recently host to physicians from 29 Georgia counties. The purpose of the meeting was to study the latest advances in cancer treatment. Dr. O. F. Whitman, Albany, regional medical director, presided at the meeting. Public health nurses received instructions in referral of cancer patients to State-aid centers located in Americus, Thomasville and 10 other cities in the State. The meeting was sponsored by officials of the American Cancer Society, Georgia Division, jointly with the Georgia Department of Public Health. Georgia physicians participating were Dr. Enoch Callaway, LaGrange, president-elect of the Medical Association of Georgia and chairman of the State Executive Committee, Georgia Division, American Cancer Society; Dr. Kirk Shepard and Dr. C. H. Watt, both of Thomasville; Dr. W. E. Doyle, Jr., and Dr. W. J. Murphy, both of the Georgia Department of Public Health.

* * *

Dr. James Dorman Turner, Nashville, recently completed a six weeks refresher course in children's diseases and internal medicine at the New York Polyclinic Medical School and Hospital, New York City, and has returned to Nashville to resume his practice of medicine.

* * *

Swainsboro was recently host to physicians and nurses from 28 Georgia counties who attended a regional Cancer Institute at the John C. Coleman Hotel, Swainsboro. Speakers included Dr. Milford B. Hatcher, Macon tumor clinic; Dr. Charlotte Donlan, Savannah tumor clinic; and Drs. Hoke Wammock and Edgar Pund, Augusta, of the University of Georgia School of Medicine. Dr. Abe J. Davis, Augusta, Richmond County health director, presided at the morning session. Drs. W. E. Doyle and W. J. Murphy, both of the Georgia Department of Health, were in charge of the afternoon meeting, discussing the details of the application of the patient before reporting to the State-aid clinic.

Dr. C. K. Wall, Thomasville, recently attended the annual meeting of the International College of Surgeons held in St. Louis, Mo. He also spent several days visiting Mayo Clinic, Rochester, Minn., before returning to Thomasville to resume his practice.

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Dr. W. H. Wall, Blakely, completed a post-graduate course in surgery at the Cook County Graduate School of Medicine, in affiliation with Cook County Hospital, Chicago, and has resumed his practice in Blakely.

* * *

Dr. R. Hugh Wood, Atlanta, dean of Emory University School of Medicine, has been appointed chairman of the medical advisory committee of the Atlanta Regional Red Cross Center. Dr. Wood saw service during World War II with the Emory unit in the 43rd General Hospital in Italy and in North Africa, and later was chief of medical service at Fort McPherson and Lawson General Hospital. He was appointed physician-in-chief of Emory University Hospital, and in 1946 was made dean of the University's school of medicine. Co-chairman of the medical advisory committee is Dr. Darrell Ayer, Atlanta, pathologist and director of laboratories at Crawford W. Long Memorial Hospital. Other members of the committee, which gives technical supervision and guidance to the Red Cross Blood program, include Dr. Lamont Henry, Dr. Perrin Nicolson and Dr. Carter Smith, all of Atlanta.

* * *

Dr. W. Steve Worthy, Carrollton physician and surgeon, who has had a year of study in surgery at Boston General Hospital, Boston, Mass., has resumed his practice of medicine and surgery at Carrollton.

* * *

The Fulton County Medical Society held its forty-fourth anniversary banquet at the Biltmore Hotel, Atlanta, January 6. Program: Call to order by Dr. Walter W. Daniel, president; Invocation; Installation of officers, Dr. Stephen T. Brown, president, Dr. A. O. Linch, president-elect, Dr. F. Kells Boland, Jr., vice-president, Dr. A. Worth Hobby, secretary-treasurer; Board of trustees: Stephen T. Brown, A. O. Linch, F. Kells Boland, Jr., Walter W. Daniel, A. Worth Hobby, Hal M. Davison, Jack C. Norris, Eustace A. Allen and William G. Hamm. Inaugural address of the president, Dr. Stephen T. Brown; Announcement of committees; Presentation of the President's Key to Dr. Walter W. Daniel by Dr. A. O. Linch; Report of committee on the Daniel-Ivey award by Dr. R. Hugh Wood; Award of 25-year membership certificates, and miscellaneous business.

OBITUARY

Dr. James Elzie Harden, aged 66, Whigham physician, died at his home December 2, 1948. Dr. Harden was a native of Alabama, and graduated from the University of Tennessee College of Medicine, Memphis, Tenn., in 1908. He had been active in public affairs in southwest Georgia for a quarter of a century, and has practiced medicine in Whigham community for 29 years. He was a member of the Whigham Baptist Church. His wife, the former Myrtle Hudson survives, and four sons by a former marriage Ullman, Ward, Luther and Warren Harden; two brothers and four grandsons. Funeral services were held at the Whigham Baptist Church, with the Rev. J. Gorham Garrison and the Rev. N. G. Christopher officiating. Burial was in Whigham Cemetery.

* * *

Dr. John Henry Hennies, aged 68, Brunswick physician, died suddenly at his home December 4, 1948. Dr. Hennies graduated from the International Medical Missionary College, Atlanta, in 1906. He moved to Brunswick from Jacksonville, Fla., and had lived at Brunswick for the past 20 years. He is survived by (Continued on Page 44)

WHAT IS YOUR FAITH TODAY?

The Medical Association of Georgia was builded largely on faith—faith in God, and faith in our brother physicians.

This Association will be 100 years old come March 20 of this year. This important event will be appropriately celebrated at the Hotel DeSoto, Savannah, May 10-13. At that time, among other things, each reputable white physician in the State who has practiced medicine for 50 years, or more, will be presented a Certificate of Merit and a gold lapel button for what he or she is; namely, a true disciple of the Father of Medicine—Hippocrates.

Surely much progress has been made in medicine during the past 100 years. And more progress will be made in the years to follow. But progress depends on the same sort of faith we have had in the past. We must have unity of purpose, and we must always stand together for those things which have made American Medicine great—the greatest medicine in the world of today. We must continue to study and practice clean medicine, and this medicine must not be controlled by persons whose aims are not in the interest of the people themselves.

At the moment—after all of these years of faith and progress—we are facing new problems. Certain politically-minded persons in our National Government wish to socialize our profession and all that goes with it. This is why each member of this Association received recently letters from the officers of the Association, and from the officers of the American Medical Association.

The question now is: What is your faith today? Is it for continued progress, or do you wish to throw to the winds what medicine has accomplished in these United States in the past—yes, in less than 200 years of time? Other important questions are: Have you made known your current views to your Senators and Representatives in the National Congress? And have you paid through your county medical society the \$25 assessment by the American Medical Association? Remember, you are a member of that great Association of 140,000 Doctors of Medicine by virtue of your membership in your county medical society and the Medical Association of Georgia. Surely the combined faith and effort of all of us will keep American Medicine clean, not only for ourselves but for the peoples of the entire world.

(Continued from Page 42)

his wife, one son, John H. Hennies, Jr., Jacksonville, Fla.; three sisters and several nieces and nephews. Funeral services were held at the chapel of Miller Funeral Home. The Rev. Anthony Hearn, pastor of the First Methodist Church, officiated. Burial was in Palmetto Cemetery, Brunswick.

* * *

Dr. John Oliver McCrary, aged 76, Royston physician, died December 5, 1948. Dr. McCrary graduated from the University of Louisville School of Medicine in 1897, and had practiced medicine for more than 50 years. He was a member of the Franklin County Medical Society, the Medical Association of Georgia and a fellow of the American Medical Association. He was a Mason, and a member of the Methodist Church. Interested in, and a student of, astronomy and geology as well as achievements in scientific work in general, Dr. McCrary never forgot that back of all worthwhile accomplishments was the handiwork of God. His was the true Christian life—service, love, sacrifice and charity. Surviving is his widow, the former Miss Effie Agnew; one son, J. O. McCrary, Jr., four sisters, and four brothers. Funeral services were held at the Royston Methodist Church with his pastor, the Rev. Roy P. Etheridge, and the Rev. Roy Matthews of the Baptist Church, officiating. Burial was in Rose Hill Cemetery, Royston.

* * *

Dr. Stephen Theo Ross, aged 81, Winder physician, died in an Athens hospital December 18, 1948. Dr. Ross attended the University of Georgia School of Medicine, Augusta, and graduated from Louisville Medical College, Louisville, Ky., in 1891. He practiced medicine in Jefferson one year, and then located in Jug Tavern, which is now Winder. He was a pioneer and leading figure in Winder history. He was an honorary member of the Jackson-Barrow Medical Society, the Medical Association of Georgia, the Ninth District Medical Society, and a fellow of the American Medical Association. He had served as president of the district and local medical organizations. He was a member of the Winder Methodist Church, also of its Board of Stewards, the men's choir, the Methodist Men's Club, the Baraca Class, and the Kiwanis Club. He is survived by his wife, the former Miss Beulah Williamson of Jefferson, and several nephews and nieces. Funeral services were held at the Winder Methodist Church, with the Rev. Delma Hagood, pastor, officiating. Burial was in Roselawn Cemetery, Winder.

* * *

Dr. William Darracott Travis, aged 78, beloved and prominent Covington physician, was accidentally killed in an automobile-truck collision at Tarrytown December 6, 1948. Dr. Travis was born in Conyers, the son of the late Dr. A. C. W. Travis, a native of Henry County, and Allie Livingston Travis, a native of Newton County. Dr. Travis graduated from Emory University at Oxford and received his medical degree from Baltimore Medical College, Baltimore, Md., in 1893. He took post-graduate work at the New York Polyclinic Medical School and Hospital, New York City, and afterwards graduated from the Health Department Hospital of New York City. He had practiced medicine in Covington since 1894. He was a member of the Newton County Medical Society, having served as secretary-treasurer for many years, and also as president; the Medical Association of Georgia, and a fellow of the American Medical Association. Dr. Travis was at one time vice-president of the Tri-State Medical Society of Alabama, Georgia and Tennessee. He served as secretary-treasurer of the Central of Georgia Railroad Surgeons Association, and was a member of the International Association of Railway Surgeons, and the executive branch of the American Association of Railway Surgeons. He served as surgeon for both the Georgia and Central of Georgia

Railroads. He also served as a member of the State Board of Medical Examiners. He was a member of the First Methodist Church, Covington, and taught the Men's Bible Class in that church for many years. Survivors include his wife, the former Miss Frances Maud Bomar, of Chapel Hill, Douglas County; a daughter, Mrs. William Aiken, Lyons; a son, W. D. Travis, Jr., Atlanta; two brothers, Col. J. L. Travis and Gen. Robert Travis, both of Savannah; and three grandchildren, William Travis Aiken, Lyons; William Darracott Travis, III and Robert Travis, both of Atlanta. Funeral services were held at the First Methodist Church, Covington, with the Rev. Walker Combs officiating. Serving as honorary escort were Covington Kiwanis Club, city officials and members of Newton County Medical Society. Burial was in the City Cemetery, Covington.

APPOINTMENTS

Appointment of Dr. Lowell S. Goin of Los Angeles, and Dr. J. Elliott Scarborough, Jr., of Atlanta to the National Advisory Cancer Council was announced recently by Surgeon General Leonard A. Scheele of the Public Health Service, Federal Security Agency.

As members of the Council, both men will help formulate plans and policies of the National Cancer Institute, one of the National Institutes of Health at Bethesda, Maryland, and review applications from non-federal institutions for aid in cancer control and research. Grants must be approved both by the Council and the Surgeon General.

The new appointees will serve for three years, and replace Dr. Charles Huggins, Professor of Surgery at the University of Chicago School of Medicine, and Dr. Robert S. Stone, Professor of Radiology, at the University of California, whose terms have expired.

Dr. Goin, who is chief radiologist at the Los Angeles Queen of Angeles Hospital, is a past president of the American College of Radiology, the California Medical Association, and the Radiological Society of North America, which awarded him the Gold Medal. Educated at the universities of Iowa, St. Louis, and Frankfurt, Germany, Dr. Goin has practiced radiology for 30 years.

Dr. Scarborough has been director of Winship Memorial Tumor Clinic at Emory University, Atlanta, since 1937. As assistant professor of clinical surgery, he directs the cancer teaching program at Emory University. After attending the universities of Alabama and Harvard, he served a surgical internship at Roosevelt Hospital, New York City, and was granted a Rockefeller Clinical Fellowship at Memorial Hospital, New York City. A member of the American College of Surgery and the American Board of Surgery, Dr. Scarborough will become acting chairman of the Georgia Division, American Cancer Society, in January.

Established by law in 1937, the National Advisory Cancer Council includes six leading physicians who have special training and experience and training in cancer and are not employees of the Federal government. Other Council members are Drs. Shields Warren of Harvard Medical School, Waltman Walters of Mayo Clinic and University of Minnesota School of Medicine, John J. Morton, Jr., of University of Rochester School of Medicine and Dentistry, New York, and Edward A. Doisy of St. Louis University School of Medicine. Dr. A. C. Ivy, vice president of University of Illinois, is executive director, and the Surgeon General is chairman.

SAVANNAH MEETING

Our birthday party will be held in Savannah, May 10-13. If you have a wife, tell her to begin to get ready for that Centennial Meeting. Remember, you may not live another 100 years, and please let's make this birthday cheerful.

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CONGENITAL METATARSUS VARUS

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Atlanta

Congenital metatarsus varus is a deformity which is best explained to the parents as being a "third of a clubfoot". It is a definite clinical entity, but has been recognized as such only recently. It is not mentioned in the older textbooks. While seldom seen in the past, it is now occurring with increasing frequency.

In routine examination of babies, if a foot is not a clubfoot it is assumed to be normal, and for this reason little attention is paid to the feet.

In many of these cases the mother says that she has asked her pediatrician about the slight deformity in the feet, and says that he has assured her that the feet will straighten as the child grows older. When it does not, she goes to an orthopedist who tells her that the condition will gradually grow worse and that it will require a series of casts to correct the deformity. She immediately feels resentful towards the pediatrician because he did not recognize the condition and send her for treatment sooner. She changes pediatricians and the pediatrician feels unkindly toward the orthopedist. This paper is being given with a desire to prevent this, and to record this newer information. The statements made here are based upon the study of 250 cases which have been treated by me.

We think of metatarsus varus as being a

congenital deformity, even though it is so mild it is often overlooked at birth. In most cases there is no history of deformed feet in the family, but we say it is congenital because it occasionally occurs in one foot when the other foot is a typical clubfoot. It has occurred in children whose parents have had clubfeet, and whose brothers or sisters have had clubfeet. It is also associated with other congenital deformities, such as congenital calcaneovalgus deformity in the other foot. It occurs in some cases of arthrogryposis multiplex congenita. It is at least a "first cousin" to clubfeet.

I thought at one time that I might be able to diagnose this condition early by studying the footprints made at birth for identification purposes. If the footprint shows no arch, the foot is thought to be normal, but if the imprint shows a high arch it may indicate a metatarsus varus deformity. This has been true in a number of cases, but fails in others. This may be partly due to the fact that the footprint may vary with the individual technic used in making the imprint.

I have kept a careful record of who first noticed that the foot was abnormal. In the earlier cases in the series, it was not the obstetrician, nurse or pediatrician, but the grandmother who led the list. The pediatricians are now looking for it and are examining the feet more carefully. For some months now they have been leading. When the baby is referred by the obstetrician, the deformity is unusually severe.

In the mild cases there may be at first only a slightly higher arch. The foot appears on gross inspection to be normal, but if we



Figure 1. Typical bilateral congenital metatarsus varus deformity of average severity. There is adduction of the forefoot, a high arch, and a prominence on the lateral border of the feet. The mother of this patient had a congenital clubfoot deformity, and the paternal grandfather had a clubfoot. One sister with normal feet. Two brothers have very severe bilateral clubfeet.

observe the foot we will notice that the baby always pulls the foot "in and up". It is the strong anterior tibial muscle which contracts and inverts the foot. The foot is as truly out of balance as a foot following an attack of poliomyelitis. The peronei and common extensors of the toes may be seen to contract at times, but they make a very feeble effort at pulling the foot outward. Just as the normal foot in poliomyelitis becomes more deformed by the muscle imbalance, so does this apparently normal foot become more deformed by the constant pull of the anterior tibial. The forefoot becomes more adducted and at the same time becomes more inverted. The arch becomes

higher and a prominence develops on the lateral border and dorsum of the foot. This is usually in the region of the base of the fourth and fifth metatarsals. In the severe cases all this can be seen at birth. In the baby of average severity it is first noticed around three months, and in the mild case it may not be noticed until after the child has gone to walking.

In some cases, probably the more severe, the heel is in a valgus condition, so that we have a "clubfoot" forefoot and a "flatfoot" heel. In some the heel is very definitely in a varus or clubfoot position, while in most of the younger babies it is almost impossible to tell which way the heel turns. Sometimes it seems to deviate a little in one direction as the baby sits in its mother's lap, and in the other position when it is placed on its feet.

The foot differs enough from normal that we should be able to recognize the deformity even if we were blindfolded. There is a prominence on the lateral border of the dorsum of the foot, and the forefoot offers more resistance to abduction. If the heel is held firmly in the hand, the forefoot cannot be abducted to the midline. There is a definite lack of flexibility in the foot.

A congenital clubfoot has three deformities: adduction of the forefoot, inversion of the heel, and equinus deformity in both the forefoot and ankle. In metatarsus varus we have forefoot adduction and some inversion, but never any equinus. Since there is no constant inversion of the heel and no equinus deformity, we speak of this as being a "third of a clubfoot". Some use the term "metatarsus adductus" when only the forefoot is adducted. Peabody¹ thinks of metatarsus adductus and metatarsus varus as separable clinical entities. If we observe the feet when the patient is not standing, the forefoot is inverted in nearly every case, so it seems to me to be best to use the term "metatarsus varus".



Figure 2. Six year old boy to show appearance of feet when no treatment is given in infancy. Forefoot adduction, high arch, and a prominence on the lateral border and dorsum of feet. Heels in valgus. Maternal grandmother had similar feet. She had ten brothers and sisters with normal feet. She had seven children. Three daughters with normal feet, and two with metatarsus varus, one being the mother of this patient. One son had normal feet, and one son had a clubfoot deformity on the right and a metatarsus varus on the left. No deformity in father's family.

Warkany^{2,3} and his associates have shown that the lack of riboflavin in the diet of mother rats will produce a high percentage of deformities in the baby rats, and that by adding riboflavin to the mother rat's deficient diet there will be no deformities.

We do not know that this is true for human beings, nor do we know that a mother who has a deformed child had a diet deficient in vitamin B. There has been a belief among orthopedic surgeons that there were more clubfooted patients in their charity practice than in their private practice. This has also been explained by the fact that there are more poor people than rich. Even if this be true, we cannot be sure that the diet of the poor is deficient in vitamin B.

Mothers have in recent years been receiving more vitamins during pregnancy than ever before. At the Scottish Rite Hospital we have averaged 27 new clubfooted cases a year for the past twenty-five years. In 1947 we had only 15 clubfooted cases. The metatarsus varus cases have increased from an average of 5 a year for the past ten years

to 17 in 1947, or more than three times as many. At my office the clubfoot cases have remained constant, but the number of metatarsus varus cases has more than doubled during the past year.

May we not consider tentatively a theory that some of these feet which were pre-destined to be clubfeet were stimulated by some vitamin to develop into more nearly normal feet, so that the baby was born with a "third of a clubfoot" instead of a true clubfoot?

Warkany has shown in his rats that to prevent deformities the vitamins must be given at the time the limb buds are forming. In my metatarsus varus cases, some of the mothers were taking vitamin B capsules daily before they became pregnant and continued to do so throughout pregnancy. However, most of the mothers did not begin to take vitamins until the third or fourth month of pregnancy.

Bohm⁴ has shown that all feet are in the clubfoot position when they develop at the end of the limb bud, and that they gradually

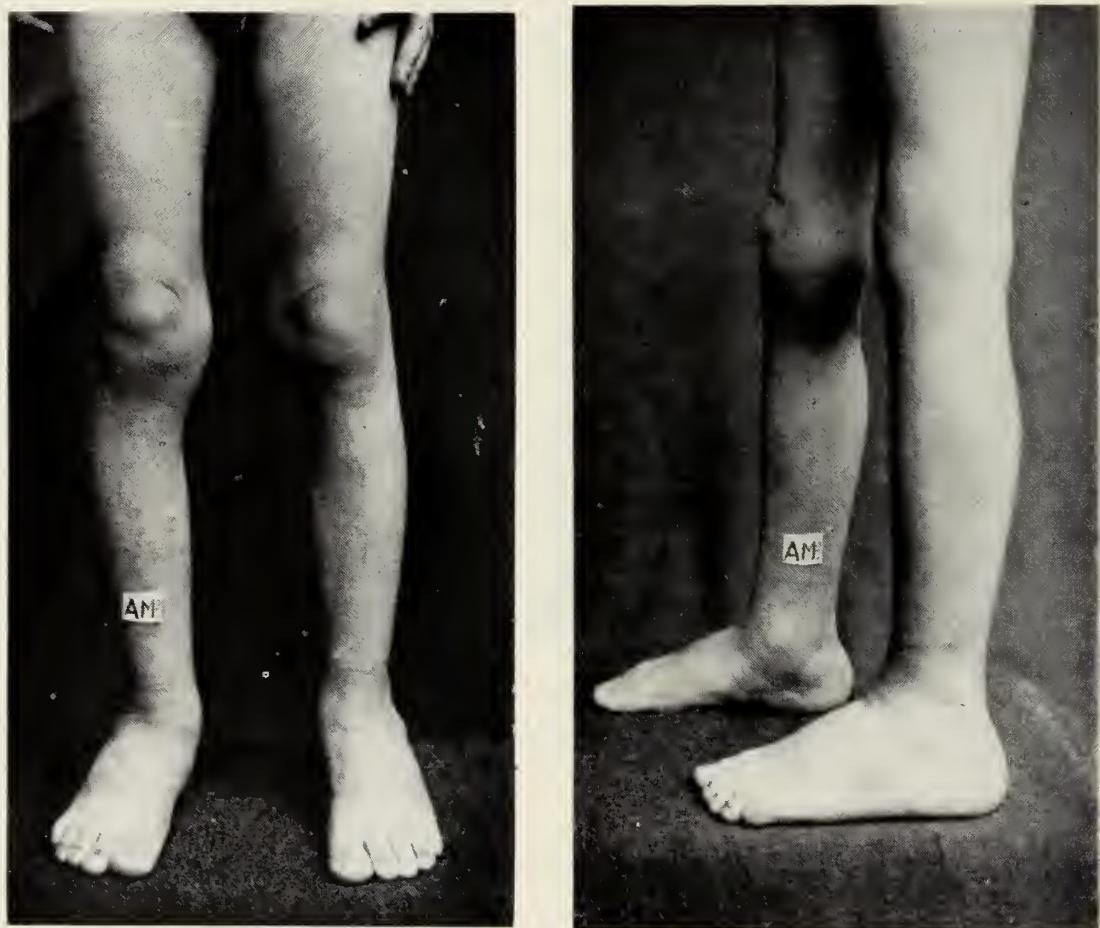


Figure 3. To show results after treatment with casts and wedgings only. No anesthetics and no operations. Forefeet straight and prominence on lateral border of dorsum has been corrected. Has needed no further treatment after being followed for ten years.

turn into the normal position as development takes place. Some vitamin may be the stimulus to cause this development. May not the taking of more vitamins account for the decrease of clubfeet and the increase of metatarsus varus cases?

The severity of the deformity varies through a greater range in metatarsus varus than it does in clubfeet. Some clubfeet present a little more deformity than others, but most cases belong to the "garden variety" and present a deformity of uniform severity. In metatarsus varus some cases are as resistant to treatment as clubfeet and these show a strong tendency to recur after treatment. There are other cases so mild they can be corrected by the mother stretching the feet, and by wearing a swung-out shoe. This variation might be expected if

the vitamin theory plays a part in this condition.

Treatment

The forefoot adduction is corrected by a series of casts and wedgings, just as is used for clubfeet. Experience has shown that the same is true for metatarsus varus as for clubfeet; that the sooner the treatment is begun, the quicker the deformity is corrected and the better the final result.

While the treatment is the same as for clubfeet, care should be exercised not to turn the heels out in a valgus position. In some of these cases the heels are in valgus when first seen. After the plaster shoe has been applied and the forefoot moulded into abduction, the heel should be turned back to the midline, as the cast is completed. In treating clubfeet we are in the habit of

turning the heel from varus to valgus, so if we are not careful the heels will be automatically held in valgus, and we will get a flatfoot.

The second care to take is not to overtreat these feet. If the forefoot is carried too far out in abduction or is held for too long a time in abduction, we are apt to get a flatfoot. The parents will object as much to the flatfoot as they did to the forefoot adduction. If we stop treatment too soon, the deformity is apt to recur and the patient will need another course of treatment. Selecting the proper time to discontinue treatment requires some experience. When the child is kept under observation and recurrences corrected, the end results are uniformly good.

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USE OF ANTICOAGULANTS IN CORONARY THROMBOSIS

On the basis of data compiled from 800 cases of coronary occlusion with myocardial infarction, it is concluded that patients treated with anticoagulant therapy in addition to the conventional forms of therapy experience a death rate and incidence of thromboembolic complications during the first six weeks period following an attack markedly lower than those experienced by patients treated solely by conventional methods. Anticoagulant therapy should be used in all cases of coronary thrombosis with myocardial infarction unless a definite contraindication exists. In the absence of hemorrhagic conditions the hazards from hemorrhage are not sufficient to contraindicate the use of anticoagulants in coronary occlusion, provided that there are facilities for adequate laboratory and clinical control.—From an address by Dr. Irving S. Wright delivered before the Graduate Fortnight of the New York Academy of Medicine, Oct. 5, 1948.

VETERANS' NEWS

The number of applications for veterans' G. I. loans dropped to 24,602 during November, 1948—the smallest monthly total since January, 1946. Veterans Administration said. November applications were about one per cent under the total received by VA during October.

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By December 1, 1948, Veterans Administration had approved 237 applications of paraplegic veterans for Federal aid to acquire homes specially designed for wheel chair living.

* * *

More than 9,000,000 World War II veterans applied for education and training under the G. I. Bill and Public Law 16 since the two laws went into effect in June, 1944, and March, 1943, respectively.

REHABILITATION OF THE HAND

ARTHUR M. PRUCE, M.D.

Atlanta

Restoring useful function to a disabled hand that has been damaged by arthritis, trauma or paralysis is a medical problem of first importance. The social and economic implications of deformity and impaired function are obvious.

Rheumatoid Hand

In considering the rheumatoid hand, all of us are agreed that joint symptoms in rheumatoid arthritis are but manifestations of a systemic disease. This concept stresses the primary need for bringing the disease under control by intensive medical management. Unfortunately, the care offered the arthritic joint in such a program is usually that of watchful waiting; this is certainly a passive approach for joints involved in a disease process in which early and rapid ankylosis is to be expected.

Rheumatoid arthritis usually occurs first in the fingers and wrists. In the acutely hot painful hand, immobilized by muscle spasm and exposed to the unremitting pull of gravity, deformity must be anticipated. Joint inflammation is associated with muscle atrophy in the hand and this is most evident in the extensors and finger adductors, consequently the hand is in muscle imbalance and the flexors and abductors pull the fingers around into the typical knobby clawed hand, ultimately frozen into uselessness.

The cardinal principles in the treatment of the arthritic joint are to relieve pain and to preserve function. For the active rheumatoid hand, immediate and complete rest is essential. This can be achieved by simple plaster shells moulded into the palm and extending beyond the tips of the moderately flexed fingers. Furthermore, by the use of

these plaster shells, the pull of gravity can be counteracted and ulnar deviation contained. Since there is marked tendency for early and rapid ankylosis, the hand should not be immobilized longer than three weeks.

Although heat is commonly accepted as a measure for relieving pain in arthritis, its use in acute arthritis of the hand must be guided by the reaction of the patient and the response of the involved joints. The simplest and best method of applying heat to the hand is the hot paraffin glove. This is ordinary paraffin with an admixture of mineral oil, melted in a double boiler and cooled until a film has formed on the surface. This mixture is carefully painted on with a dime store paint brush, layer-on-layer until five or six layers are applied; the hand is then wrapped in a heavy piece of toweling or blanket for a period of at least thirty minutes. Depending on the reaction of the patient, this procedure may be repeated. Eventually, direct multiple dipping of the hand into paraffin can be instituted.

Since there is a tendency for early and rapid ankylosis, a compromise must be struck between rest and active motion. As inflammation subsides and normal contours reappear, early active motion through a comfortable and gradually increasing range is instituted. In small doses, light massage may be applied above and below the involved joints. The joints are avoided to eliminate possible irritation of the synovial membrane.

The arthritic patient must be constantly cautioned against the abuse of activity, since patients with arthritic hands and wrists are apt to use these members regardless of pain and stiffness, thus causing a possible flare-up or recurrence.

Traumatic Hand

Simple fractures and lacerations that have received adequate care should be restored to function in five weeks; however, infection often impairs functional progn-

osis. With lymphangitis and fascial space infection the outlook is good but disability must be expected with tendon sheath involvement, even though surgical care has been complete and proper.

When the simple laceration of the hand or fingers has been repaired, or the fracture set, the injured part should be splinted in the position of function. Since usefulness of the hand depends on the mobility of the fingers, our problem is combatting the stiffened joint and maintaining joint motion. The two common causes for finger stiffness are: (1) persistent edema of the hand, and (2) excessively prolonged fixation. Edema can be controlled by bivalving the cast, by elevating the extremity and by frequent active movements of the undamaged fingers. Often the surgeon will direct the patient to keep the fingers moving, but may overlook the fact that improper trimming of the plaster cast grossly limits such activity. The metacarpophalangeal joints are especially susceptible to stiffening if immobilized by a cast that extends beyond the distal palmar crease for prolonged periods.

The acutely infected hand requires complete rest during the stage of infection and possible spread of inflammation. As inflammation subsides and granulations appear, an effective measure to stimulate healing is complete immersion of the hand in warm water at temperature of 92 to 100° F. for five to ten minute periods. Such immersions should be repeated several times during the day. The whirlpool bath is especially valuable. Contrast baths are helpful in improving vascular tone in the persistently cold and stiff hand. This is done by alternate dips of the injured hand into warm and then cold water at temperatures of 110 and 60° F.

After the wound has healed, paraffin glove treatment is effective in overcoming residual stiffness and as a preliminary to active exercise. Useful movements, as in

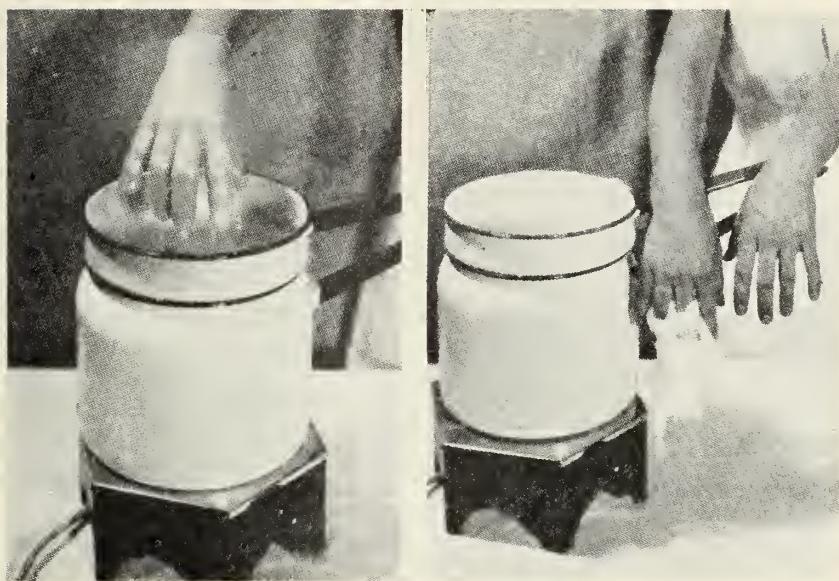


Figure 1. Method of dipping hand to form a glove of hot paraffin (left). Method of removing paraffin glove showing the ease with which it can be stripped off (right). Observe the hyperemia of the treated hand as compared with the untreated one.

eating or dressing, are as vital for rehabilitation of the hand as active exercises done under supervision. Massage and passive movements are not substitutes for active motion. In fact, passive movements can be harmful. The patient must be cautioned against grasping the stiff finger and manipulating it, since this may cause an aggravation of the stiffness. Forced manipulation may give rise to synovial irritation, with resultant synovitis and formation of denser joint adhesions. Trauma superimposed on an arthritic hand in the older patient may require that the part be mobilized early, even at the risk of imperfect anatomic healing of the fracture. In this older age group perfect r-ray evidence of healing is all too often associated with a poor functional end-result.

As rehabilitation progresses, grip can be strengthened by a sequence of grasp exercises. This can be done with rubber sponges or sponge rubber balls, which the patient is given to squeeze at frequent intervals. The sizes of these sponges are gradually reduced until grip is satisfactory. Finally, in

getting the patient back to work it may be necessary to build up his tool handles to accommodate his grip. Obviously this is the best type of occupational therapy.

Paralytic Hand

Proper diagnosis is the first step in treatment of peripheral nerve injury. An initial muscle test is needed to establish the extent of paralysis and must be supplemented by galvanic-faradic examination to aid in differentiating between hysterical paralysis and true nerve lesion. This first test, carefully recorded, is basic for all progress examinations and is essential for proper evaluation of end results.

It is commonly accepted that after end-to-end nerve suture, peripheral growth of the nerve is approximately one-half inch a month. During this protracted and variable period, adequate care requires both correct splintage and physical therapy.

Mobilizing splints permitting function of the part, yet giving adequate support to the paralyzed muscles, is a distinct departure from the prewar concept of continuous immobilization. Early in the war it was de-

termined that fixed splintage tended to stiffen the joints in the splinted pattern. It is now the concensus of opinion that the mobilizing splint is effective, and that the possible trauma of transitory stretching of paralyzed muscles is insignificant when weighed against the benefits derived from the maintenance of full joint motion.

The functional end-result following nerve repair depends on intensive and prolonged physical therapy. This should be started as early as possible and continued until maximal recovery has been attained.

Pre-operative treatment for the paralytic hand consists of the frequent application of the paraffin glove to aid in loosening stiffened joints. The paraffin is removed from the paralyzed fingers with cautiously administered mobilizing massage, and each paralyzed joint is then carried through the maximal range of motion. This is followed by active exercise to the normal fingers.

Postoperatively, the maintenance of supple joints in the paralyzed hand is carried out by the patient who is taught a routine of self-administered passive movements for the involved fingers, active for the normal. With the first sign of returning voluntary muscle contraction, graduated active exercises are added.

Opinions vary as to the value of electric stimulation in the treatment of nerve injury. Practically, galvanic stimulation of the paralyzed muscles will not hasten outgrowth of the nerve. At best it may retard muscle atrophy if started early after injury and continued throughout the paralytic period.

Conclusions

1. The application of physical measures in rehabilitation of the hand must be guided by the reaction of the patient and the response of the hand.
2. Massage is no substitute for active motion.
3. With the exception of paralysis, pas-

sive movements of the fingers must be condemned.

4. Early return to normal work procedures is the best type of occupational therapy.

ACUTE ACQUIRED HEMOLYTIC ANEMIA, IDIOPATHIC TYPE

Report of Case in a Negro

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The hemolytic syndromes include a large group of conditions which have in common the feature of excessive blood destruction as the usual outstanding manifestation.¹ In general, these syndromes may be divided into the hemolytic anemias and the hemoglobinurias. The hemolytic anemias may be subdivided, on a clinical basis, into the hereditary and acquired. Schwartz¹³ subdivides the acquired form into two groups: the idiopathic and symptomatic. Based on this classification this paper is concerned with acquired hemolytic anemia, idiopathic type.

This particular syndrome has been reported in the literature under a variety of designations. Some of the synonyms, as noted by Dameshek and Schwartz² in their extensive review of the subject in 1940, are: "acute grave anemia", "hemolysinic icterus", "acquired hemolytic icterus", and "Lederer's anemia". They recommended that this particular syndrome be designated "acquired hemolytic icterus (anemia) of

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unknown cause", with or without hemolysins in the serum; however, some of the case reports since that date have appeared under the following designations: "autohemolytic anemia"¹⁴, "acute acquired hemolytic anemia"¹⁵, "erythrophagocytic anemia (Lederer's anemia?)¹⁶", and "atypical hemolytic anemia"¹⁷. Wintrobe¹ discusses this disease under the title of "acute hemolytic anemia of unknown etiology".

Tileston³, in his critical review in 1922, noted that the acquired type was first described by Hayem in 1898 and more fully in 1907 by Widal. Because of their observations the acquired form frequently has been referred to as the Hayem-Widal type. Tileston also noted that Widal described the phenomenon of autoagglutination of red blood cells in a case of acquired hemolytic icterus in 1908. Reisner and Kalkstein¹⁴ reported in 1942, that in a search of the literature they found only 54 case reports exhibiting autoagglutination. Since then most observers have attempted to demonstrate agglutinins or hemolysins in cases of acquired hemolytic anemia of unknown etiology.

Acquired hemolytic anemia, idiopathic type, is a relatively rare disease. Dameshek and Schwartz², in 1940, reviewed about 106 cases. A search of the available literature since that date reveals about 50 additional cases. Frequently case reports fail to state the race of the patient, but in a review of 72 case reports¹²⁻³⁸ only 2 possible instances²³ were noted in the Negro race. Dameshek⁴⁰ states he has never observed a case of this type in a Negro. Schwartz⁴¹ reports that he has seen one case of hemolytic anemia in a Negro male with all the features of the congenital type, but he states the patient's family was not available for study. Only about 8 cases of the congenital type have been reported in the Negro race⁴. In view of the evident rarity of both types in Negroes, it was felt that a case report of

idiopathic acquired hemolytic anemia in a Negro would be of considerable interest.

REPORT OF CASE

P.K., a 16-year-old Negro male, was first seen on July 10, 1947, complaining of weakness, nausea and vomiting, and pain in the right upper quadrant. History of present illness revealed that the patient first began to experience weakness in his legs during the last week of June 1947. About one week later he noted a sensation of dizziness and of blood rushing to his head on stooping over. At this time he began to experience almost continuous headaches, and a few days later his parents noted that his eyes appeared yellow. Medical advice was obtained but the patient experienced nausea and vomiting each time he attempted to take the prescribed medication. During this period he noted an increase in weakness and dizziness and about two weeks after onset he became feverish and was forced to go to bed. He was then admitted to the hospital in Albany, Georgia, on July 10, 1947.

The patient's past history was negative except for measles in infancy. A review of systems revealed a history of attacks of nausea and vomiting after eating fruit salad. He stated that previously he had been very active physically, and recently had been promoted to the 11th grade.

The patient's father is 53 years of age, living and well, and gave a history of an attack of jaundice five years ago without any complications. The mother, 45 years of age, is living and well. The patient has six brothers living and well. One sister died in infancy with pneumonia. There was no known history of an illness in any member of the family similar to the patient's present illness. The father's blood was type A, and the mother's blood was type B. The red blood cell fragility was within normal limits for the mother and father and two of the brothers.

Physical examination, on admission, revealed pallor of the mucous membranes, marked jaundice, and moderate enlargement of the heart, with a soft blowing systolic murmur at the apex. The spleen and liver were not palpable and there was moderate edema about the ankles. The erythrocyte count was 670,000, the hemoglobin 16 per cent (Sahli), and the leukocyte count was 15,200 with 86 per cent neutrophils and 14 per cent lymphocytes. The volume index was 1.5, and a wet preparation was negative for sickling. Icterus index was 90 and values for N.P.N., blood sugar, creatinine, and urea nitrogen were within normal limits. Hemolysis began at 0.40 and was complete at 0.34. The blood Kahn test was negative and the patient's blood was type B and Rh positive. Urinalysis revealed a 1 plus albumin and no obvious hemoglobinuria. Blood cultures were negative. Gastric analysis revealed no free hydrochloric acid, and the total acidity was 15 degrees.

The patient was hospitalized for 12 days and during this period he received 1 c.c. of liver extract daily and a total of 6 transfusions of 500 c.c. each. Moderate improvement was noted and he was dismissed to his home with a 60 per cent hemoglobin and a red blood cell count of 3,670,000. Nine grains of ferrous sulphate and 15 mg. of folic acid daily, and 1 c.c. of liver extract once weekly, were prescribed.

About August 15, 1947, almost three weeks after returning home, he began experiencing attacks of nausea and vomiting and pain in right side of abdomen. For the first time he began to pass extremely dark colored urine.

On August 17, 1947 he was returned to the hospital with a temperature of 103 degrees. He was very dyspneic and was placed in an oxygen tent. At this time his red count was 1,520,000, hemoglobin 32 per cent, and leukocyte count 20,300. In spite of repeated transfusions, oxygen, and penicillin, the patient continued to feel extremely weak and his urine remained dark colored. On one occasion his red count dropped to 670,000. On August 26, 1947 he was transferred by plane to the University Hospital, Augusta, Georgia.

On admission to this hospital the main physical findings were essentially the same as those noted on the patient's first admission, but one examiner felt that the spleen was probably palpable. Blood studies revealed a red count of 1,300,000, hemoglobin of 3.8 Gm. (Sahli), white count of 90,000 (21,900 corrected), a platelet count of 120,000, and a reticulocyte count of 19 per cent. Hemolysis began at 0.82 and was complete at 0.32. The icterus index was 250 and the Van den Bergh was 3.1 mg. and indirect.

A stained smear of the peripheral blood revealed a shift to the left in the myeloid series (table 1) with 9 pronormoblasts and 210 normoblasts per 100 leukocytes. The erythrocytes exhibited marked irregularity in size, shape, and color, and many deep staining spherocytes were present. Mitoses were frequent. There was marked clumping of the erythrocytes and rapid crenation so that even smears were difficult to obtain. Occasional monocytes containing phagocytized erythrocytes were noted. The platelets mostly were normal but a few giant forms were seen.

Table 1

*Differential Count of Peripheral Blood
and
Bone Marrow Cells*

	Blood	Marrow
Myeloblasts	0	2
Promyelocytes	0	2
Myelocytes	4	4
Metamyelocytes	3	7.5
Neutrophilic stabs.	13	0
Neutrophilic segs.	52	12
Eosinophils	2	0.5
Basophils	2	0
Lymphocytes	17	1
Monocytes	7	0
Reticulum cells	0	0.5
Plasma cells	0	0
Megakaryocytes	0	0
Erythroblasts	0	12.5
Basophilic normoblasts	0	8
Eosinophilic normoblasts	0	50

The bone marrow presented a picture of extreme erythrocytic hyperplasia (table 1). Numerous extremely young erythrocytes were seen and mitoses were exceptionally frequent. Rather frequent reticulum cells contained phagocytized erythrocytes or the remains of normoblasts. The leukocyte-nucleated erythrocyte ratio was approximately 1:2 to 1:5 instead of the usual 4:1.

The urine was reddish-black in color with a specific gravity of 1.010. Albumin was 4 plus and the microscopic examination was negative. Urobilinogen was strongly positive.

On typing marked autoagglutination was noted, and on cross-matching it was necessary to dilute the patient's serum with normal saline in order to obtain a match between the patient's serum and the donor's cells. No match could be obtained when combining the patient's cells and the donor's serum.

On admission on August 26, 1947, the patient was given 450 c.c. of whole blood without any reaction. On August 27, 1947, splenectomy was performed by Dr. J. H. Sherman. The patient received 1000 c.c. of blood during the procedure. At operation the stomach appeared normal, there was moderate swelling of the liver, and the gallbladder seemed normal except for pericholecystic adhesions. The spleen was about three times normal size, and increased in consistency. Three accessory spleens were found: two in the gastro-splenic ligament and one in the omentum overlying the left side of the transverse colon. The largest of these was about 0.5 cm. in diameter and all three were removed.

The pathologic examination of the spleen by Dr. Edgar R. Pund was as follows: "The spleen weighs 460 Gm. There is extreme congestion of the red pulp where the erythrocyte content exceeds that of the sinuses. There is a diminution of the white pulp and absence of germinal centers in the small lymph nodules. There are two superficial anemic infarcts, each 0.4 cm. in diameter on the superior border".

The postoperative course of the patient was considered good. On August 29, 1947, he was allowed to sit up in bed. The evident hemoglobinuria gradually cleared, and on September 2, 1947 the urine was straw-colored. On September 6, 1947 the urine was negative for albumin. The urobilinogen content of the urine decreased progressively and was negative on September 30, 1947 for the first time.

There was an initial rise in the red count and hemoglobin postoperatively; however, a gradual fall was noted after August 29, 1947. On September 1, 1947 the patient experienced a marked fever reaction after receiving 200 c.c. of whole blood. Finally, on September 5, 1947, a completely satisfactory cross-match was obtained for the first time during this admission and the patient was given a transfusion of 500 c.c. of blood with no untoward reaction. Thereafter the patient improved progressively and he was allowed up in a wheel chair on the 12th postoperative day. By September 11, 1947 the icteric tint of the sclerae had almost disappeared, and on the 19th postoperative day the patient was allowed to be up and about as desired. Additional transfusions of 500 c.c. each were given on September 10, 1947 and September 22, 1947 respectively.

Additional studies were made postoperatively. X-ray studies of the skull, both knees and the chest were negative. On September 1, 1947 the Donath-Landsteiner test was negative, but autoagglutinins were evident in the cold and also on incubation at 37 degrees Centigrade for 30 minutes. Slight isoagglutination, using type 0 cells, was noted. A fragility test on September 6, 1947, revealed that hemolysis began at 0.64 and was complete at 0.42. The heterophile antibody test was positive in a serum dilution of 1:56. Serum agglutination tests for typhoid, paratyphoid, typhus, and undulant fever were negative. On September 6, 1947 the icterus index was 100 and values for blood N.P.N., uric acid, cholesterol, and total and fractional proteins were within normal limits. The stools were brown in color and negative for blood and parasites.

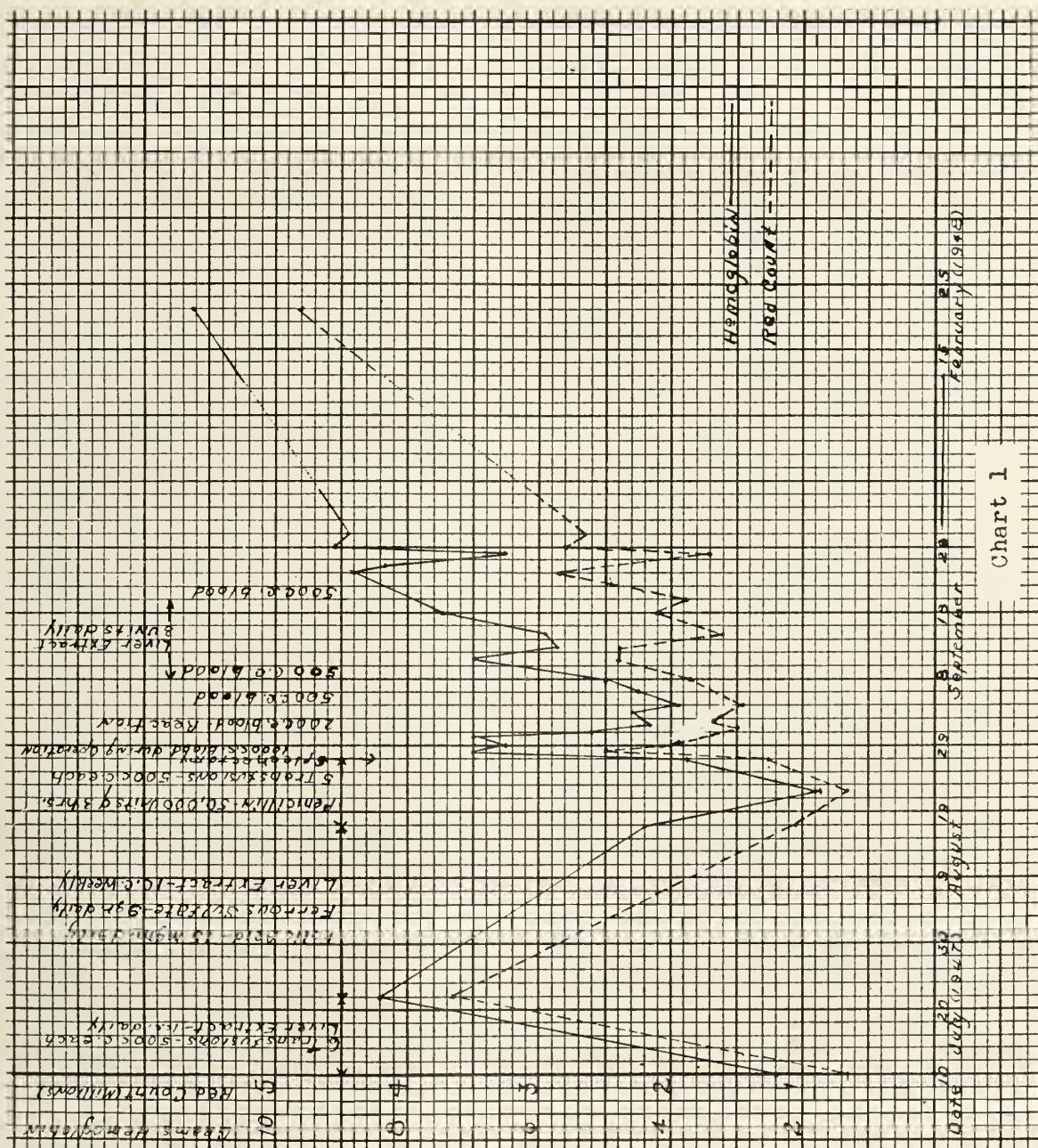
On September 5, 1947 tests for autoagglutinins, using normal saline as a diluent, were negative, but on September 17, 1947 tests for warm autoagglutinins, using bovine albumin as a diluent¹², were positive in a 1:1 dilution. At no time were we able to demonstrate the presence of a hemolysin *in vitro*.

On September 5, 1947, a differential white count revealed a diminution in the left shift and only 76 normoblasts per 100 leukocytes. However, irregularity in the size, shape, and color of the red cells and moderate spherocytosis were still evident. On September 6, 1947, the color index was 0.89, the volume index was 1.25, and the corrected sedimentation rate was 2 mm. The red count was 1,640,000, the hemoglobin 4.5 Gm., and the volume of packed red cells was 19 mm.

On September 25, 1947, the icterus index was 22 and the Van den Bergh was 2.6 mg., and indirect. The patient was dismissed to his home on September 30, 1947, with an erythrocyte count of 2,340,000, a leukocyte count of 7,600, and a reticulocyte count of 19 per cent.

On re-examination on February 21, 1948, the patient appeared entirely well. The erythrocyte count was 4,810,000, the hemoglobin 82 per cent and the reticulocyte count was 4 per cent. The urine was negative for urobilinogen. A repeat fragility test revealed that hemolysis began at 0.42 and was complete at 0.28. The control began at 0.42, and ended at 0.36.

A graphic picture of the patient's course as reflected by hemoglobin determinations and red blood cell counts is presented in Chart 1.



Discussion

The etiology and pathogenetic mechanisms in these cases have instigated considerable investigation and discussion. In 1938 Dameshek and Schwartz⁵ demonstrated that hemolytic states could be produced experimentally in guinea pigs by means of an immune hemolytic serum. From this observation they concluded that the hemolytic process was due generically to hemolysins and that the resultant changes in the red

blood cells were due to the activity of the hemolytic agents. These and further studies⁶ suggested that a chemical or immune hemolysin produced within the body tissues might result in injury to the red cells. After the action of such a chemical or antibody, it is possible that the injured red cells are more susceptible to several factors, such as mechanical fragmentation, stasis, splenic activity; and the action of metabolic hemolysins such as lysolecithin^{7,8}. However, the

exact source of these hemolysins and the role played by the spleen in this disease remains obscure.

Neber and Dameshek¹², in 1947, reported an improved method of demonstrating circulating antibodies in acquired hemolytic anemia through the use of a bovine albumin medium. With this method they were able to demonstrate a warm isoantibody in each of the five cases of "idiopathic acquired hemolytic anemia" studied. These isoantibodies were not demonstrable in other cases of acquired hemolytic anemia due to chemical, "hypersplenic" and other causes. A circulating hemolysin was demonstrated in one patient with congenital hemolytic anemia during a crisis. They were also able to show a correlation between the survival time of injected normal red blood cells and the presence of circulating antibodies. In cases exhibiting antibodies the survival time of normal red blood cells was diminished, which indicated the action of an abnormal hemolytic antibody against the introduced red cells. Boorman, Dodd, and Loutit⁹ were able to demonstrate the presence of isoantibody adsorbed to the red blood cell through the use of antihuman serum-rabbit serum. The red blood cells from 17 cases of congenital hemolytic anemia and five cases of acquired hemolytic anemia were tested. None of the congenital cases gave positive results, while all of the acquired cases exhibited agglutination. Thus, it is evident that the antibody may be present in the serum or adsorbed to the red blood cell or possibly both. Neber and Dameshek¹² feel that the complete lack of any type of antibody in cases of acquired hemolytic anemia point to some other etiologic mechanism, such as chemical poisons, or "hypersplenism".

Since numerous etiologic factors are involved in producing the various hemolytic anemias, it is evident that numerous patho-

genetic mechanisms are probably involved. Several theories have been presented and it is possible that the hemolytic mechanisms in these cases may be due to one or more of the following factors: (1) to defective red blood cell formation; (2) to an abnormal function of the reticulo-endothelial system and spleen; (3) to erythrostasis in the spleen, with consequent agglutination and a resultant destruction of the red blood cells; (4) to an increase in lysolecithin or to an abnormal production of hemolysins¹³. An interesting observation was made by McGavack¹⁴ in 1939 wherein he noted that splenic material placed on a blood agar plate for culture resulted in hemolysis wherever the splenic material came in contact with the blood agar. This splenic material was also hemolytic for the patient's blood.

Relative to symptomatology, Dameshek and Schwartz² designated cases as either acute fulminating, acute, or subacute and noted that chronic cases may exhibit acute exacerbations. The symptomatology of the hemolytic state, in general, appears to be dependent upon the rapidity of red blood cell destruction. The manifestations of the disease are not specific in nature and the symptoms are mainly those of an acute febrile illness plus those due to an acute anemia. Patients during rapid hemolysis frequently complain of headache, extreme backache, pain in extremities and vague abdominal pain. A chill followed by a rapid rise of temperature frequently occurs, and nausea, vomiting, and diarrhea may be present. A short time after onset the urine may become dark colored and in some cases anuria or oliguria may develop¹. As a rule, jaundice appears very rapidly. There may be edema, and thromboses are not infrequent¹. In some cases weakness and dyspnea may develop gradually as the most prominent complaints and it may be a matter of several weeks or longer before the

patient's condition becomes critical because of severe anemia¹⁹.

On physical examination the patient usually appears ill, the sclerae are icteric, and a moderate general pallor is evident. The temperature may range from 99 to 104 F., and moderate tachycardia is present. Retinal hemorrhages are occasionally noted¹ and the tongue, except for pallor, appears normal. A soft, blowing systolic murmur may be audible over the precordium. The liver is frequently enlarged and the spleen is usually palpable. In a review of 68 case reports¹⁴⁻³⁸, the spleen alone was palpable in 26 cases, both the liver and spleen in 22, the liver alone in 3, and neither was palpable in 17 of the cases.

The laboratory findings are usually consistent with an acholuric jaundice plus those of excessive hemolysis. The urine may be dark in color and usually contains excessive urobilin and urobilinogen. Hemoglobinuria, albuminuria, and casts may be present¹, especially during an acute hemolytic crisis. The stools are highly colored and urobilin output is increased. The blood serum reveals an indirect bilirubinemia and accurate estimation may be difficult because of excessive hemoglobinemia. The anemia is usually marked and may be normocytic, microcytic or macrocytic; however, many cases present a picture of what Dameshek and Schwartz call a "pseudomacrocytic" type of anemia². In acute cases the red cell count may fall rapidly to one million or lower. The white count usually is quite high in acute cases but in chronic cases a leukopenia may be observed⁶. The reticulocytes are strikingly increased and may be 60 per cent or higher. Smears of the peripheral blood usually show a marked irregularity in the size, shape, and color of the erythrocytes and many deep-staining spherocytes are often evident. Polychromatophilia and normoblastosis are striking and a differential count, as a rule, reveals a shift to the left in

the myeloid series, but myeloblasts are not frequently seen. Erythrophagocytosis may be noted¹⁶. The bone marrow picture is predominantly one of extreme erythrocytic hyperplasia with a reversal of the leukocyte-nucleated erythrocyte ratio. The fragility of the red cells is usually increased, but many cases have been reported with normal findings in this respect. Platelet counts have been reported as either normal, increased, or decreased. Besides the above laboratory data, recent work has shown that a circulating antibody, in the serum or adsorbed to the red cell, can be demonstrated in most of these cases⁹⁻¹².

Pathologically, the essential abnormalities are to be found in the spleen, liver, and bone marrow. The spleen is enlarged one and a half to five times the normal size and the following microscopic findings are usually evident: (1) histiocytic proliferation with giant cell formation; (2) extreme congestion of the pulp; (3) multiple infarcts¹⁻². The lymph follicles are widely separated and the endothelial cells of the sinuses frequently contain iron-staining pigment. Enlargement of the liver with hemosiderosis is often noted². The main finding in the bone marrow is that of normoblastic hyperplasia.

The diagnosis of idiopathic acquired hemolytic anemia is made mainly by exclusion. The picture, as already described, is one of an acute hemolytic anemia, and the essential problem is to exclude other known causes of excessive blood destruction. An adequate history and a detailed physical examination plus careful blood studies usually will serve to exclude the more common causes. The crises of congenital hemolytic anemia are almost identical with those of acute acquired hemolytic anemia; however, the family history and the absence of circulating antibodies in the congenital type should enable one to differentiate between the two. The congenital cases have been

described as being "more icteric than sick" and the acquired cases as being "more anemic than jaundiced".

Although some cases are self-limited and some are inevitably fatal, the prognosis of this disorder, in general, appears to be based largely upon prompt and adequate treatment in each individual case. This is evident by reason of the fact that some of the cases reviewed responded to one or more transfusions and some required splenectomy. In a review of 67 case reports¹³⁻³⁸, out of a group of 3 receiving no treatment, 2 recovered spontaneously and one died; out of a group of 24 of these receiving one or more transfusions only, all 24 recovered; out of a group of 40 of these cases requiring splenectomy, 27 recovered and 13 died. In the latter group the death in 7 cases appeared to be due to post-operative complications. Dameshek¹⁹ feels that one sees almost 100 per cent mortality with so-called expectant treatment.

Where transfusions are used it is important to use a donor of the same blood group as the patient. In cross-matching it is preferable to use the test tube method and to incubate the cross-match for one hour at 37 degrees Centigrade. This is important in order to make certain that the patient's blood does not contain hemolysins or agglutinins against the donor's cells¹. If it becomes evident that transfusions are of only temporary benefit, splenectomy should be considered. In performing a splenectomy, accessory spleens should be searched for and removed if found. Some observers have recommended injecting the spleen with 1 c.c. of adrenalin prior to ligation of the splenic vessels, but Dameshek¹⁹ feels that such a procedure might result in the discharge of a large dose of hemolysins into the circulation. Liver extract, folic acid, and penicillin appear to be without value in the treatment of this condition. In view of the fact that thromboses and infarctions have been noted

as complications, it is probable that the prophylactic administration of heparin and dicumarol might be of value.

Comment

The patient presented in this case report is of unusual interest because of the evident rarity of this condition in the Negro race, but the course, findings, and response to treatment are also of considerable interest. On admission this patient presented the picture of an acute anemia with no definite etiologic factor evident. The fragility of the red blood cells was within normal limits at this time. Moderate, but temporary improvement was obtained following six blood transfusions. Three weeks later a hemolytic crisis, accompanied by hemoglobinuria, was noted. Six transfusions were given during a ten day period with only slight improvement and the evident hemoglobinuria persisted. At the end of this period examination revealed the presence of autoagglutinins and later examination revealed the presence of isoagglutinins. The fragility of the red blood cells now was increased. There was a marked anemia, a moderate increase in reticulocytes and a moderate leukocytosis. Examination of stained smears revealed a shift to the left in the myeloid series, numerous nucleated red cells, moderate spherocytosis, and evidence of erythrophagocytosis. The bone marrow picture was essentially one of extreme erythrocytic hyperplasia. Other laboratory data supported the impression of an acute hemolytic anemia. Splenectomy was performed approximately nine weeks after the onset of the patient's illness and three accessory spleens were removed. The pathologic examination of the spleen was compatible with an acute hemolytic anemia.

The patient received four transfusions postoperatively and improvement was progressive. The hemoglobinuria decreased progressively and was absent by the 5th postoperative day. On the 9th postoperative

day, using normal saline as a diluent, neither auto nor isoagglutinins was demonstrable, but on the 21st postoperative day, using bovine albumin as a diluent, slight autoagglutination was evident. This suggested a gradual diminution in the titer of circulating antibodies following splenectomy. In view of the above findings and the improvement noted following splenectomy, it seems very likely that the spleen is definitely implicated in the pathogenesis of this condition in several ways: an acquired abnormality may cause this organ to form or to stimulate the formation of agglutinins or hemolysins or it may act as the primary organ of destruction for red cells already injured by hemolysins or agglutinins from some other source. The finding of a circulating antibody during a hemolytic crisis in a case of congenital hemolytic anemia by Neber and Dameshek¹² suggests the possibility that the occurrence of circulating antibodies in these cases might be the result and not the cause of hemolysis in this disease.

Summary

A case of acute acquired hemolytic anemia, idiopathic type, has been reported and the literature has been briefly reviewed. Although numerous theories as to the pathogenesis of this condition have been reported, recent work relative to circulating antibodies in these cases indicates that the answer to this problem probably will be found in the field of immunochemistry or immunohematology¹¹.

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TUBERCULOSIS

There would be little question that the mortality and morbidity from tuberculosis infection in the children of Europe seriously increased owing to war conditions, and in many countries is still a matter of the greatest concern. Richard W. B. Ellis, M. D., Brit. M. J., Feb. 7, 1948.

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It is now generally accepted that what the tuberculin test is to the establishment of the presence of infection, and the x-ray to early case finding, bacteriological examination for tubercle bacilli is to the determination of clinical activity. Francis J. Weber, M.D., Pub. Health Rep., Sept. 3, 1948.

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A rehabilitation program of the tuberculous cannot be accomplished in a short time, nor can it be done by any one person or agency. It is a long and arduous process that requires careful planning and organization to be lasting and that needs the cooperative effort of all groups, both official and voluntary. But it is a program that is well worth all the effort that can be put into it. Edward N. Chapman, M. D. and Helen E. Wilson, Rocky Mountain M. J., Jan., 1948.

ANEMIA IN LABOR

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Augusta

The purpose of this study is to investigate anemia in labor and attempt to determine whether there is any relation between prolonged labor and reduced hemoglobin values, regardless of the etiology of the latter.

Sampson, Rose and Quinn¹ measured the oxygen consumption of 39 labor cases and concluded that the work of labor was equivalent to mild to moderately heavy physical labor. From this, it seems reasonable to assume that any impaired oxygen carrying capacity of the blood would reduce the efficiency of the uterine musculature and prolong labor. No air force pilot would expect his B-29 to take off on a tank of kerosene and no obstetrician should expect a uterus to function properly without the proper fuel.

None of the standard textbooks of obstetrics mention anemia as a cause of prolonged labor or dystocia. C. E. Galloway², in discussing a paper by Dr. Lyon in 1929, stated: "I have not been able to prove that the delivery and puerperium of patients who have been severely anemic are any different from those of other patients". Harvey³ was of the opinion that low hemoglobin findings did not adversely affect the prospects for a satisfactory termination of labor and he stated: "It cannot be shown that low blood findings have a bearing on the length of labor nor that long labor influences unfavorably the findings on the fifth to seventh postpartum day".

On the other hand, Nalle⁴ said: "I believe that anemia undiscovered and untreated in many instances, results in an anemia of such

severity as to interfere decidedly with the well-being of the patient during pregnancy and to impair her endurance during labor and to make miscarriages and premature births more frequent". Lull⁵ stated: "An unrecognized or inadequately treated anemia of pregnancy probably plays an important part in the development of many of the complications of . . . labor . . .". Vaux⁶ believed that "general weakness and inertia of the patient, where types of anemia associated with pregnancy exist, prolong labor. Faber and Mussey⁷ stated: "Delibitating or exhausting constitutional diseases, such as profound anemia . . . are also noted as causes of marked uterine inertia." Smith⁸ listed anemia as a doubtful cause of uterine inertia.

Torpin⁹ stated that "abnormal physiology of labor may occur in otherwise normal and well-nourished women with adequate pelvic canals, who were markedly anemic".

The cases for our study are composed of 290 consecutive staff deliveries at the University Hospital in Augusta, Georgia, and at the adjacent lying-in shelter for colored multiparas between September 1, 1947 and February 1, 1948. We were forced to exclude 59 more records from the lying-in shelter because no hemoglobins were done. For obvious reasons two cases of cephalopelvic disproportion, requiring cesarean section, and two cases of transverse presentation of the fetus were excluded. All cases delivered spontaneously except one, which was delivered by Keilland forceps. No forceps deliveries occurred among the cases excluded.

In the series there were 185 multiparas and 105 primiparas. Eighty-four of the multiparas were delivered in the lying-in shelter. The multiparas and primiparas were each divided into two groups: those having hemoglobins above 11 grams per 100 c.c. of blood and those with values be-

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low this. The hemoglobins were determined by the Sahli-Hellige type hemoglobinometer and, in the cases with the lower values, was checked with the Fisher electrocolorimeter. All hemoglobins were determined when the patient entered the hospital in labor.

The reason we chose the dividing line as 11 grams of hemoglobin per 100 c.c. blood, was because Labate¹⁰ in studying the dilution or hydremia of blood in 19 women at term and ten days postpartum concluded that the lowest hemoglobin which may be considered physiologic is 11.3 grams per 100 c.c. However, Oberst and Plass¹¹ found the water concentration of whole blood to be significantly increased during gestation, but to fall to a normal level as parturition is approached and to drop below normal at the time of the delivery. They stated: "The hemoglobin content of cells is increased in the later part of gestation and further increased during labor, when it is approximately 7 per cent higher than in nonpregnant women". Although these two investigators do not concur on what constitutes normal hydremia of the blood at term, neither considers a hemoglobin below 11 grams per 100 c.c. as due to physiologic hydremia.

All primiparas had the size of their pelvis determined by the Torpin-Thoms roentgenopelvimeter and this coupled with lateral films of the uterus, in which the fetal head size was accurately determined, definitely ruled out any cases of prolonged labor due to cephalopelvic disproportion. All multiparas delivered in the hospital had lateral films of the abdomen made, and a few who did not progress properly also had internal pelvic measurements taken as in the primiparas. The lateral films also enabled us to tell the exact presentation of the fetus.

Labor in the hospital cases was considered as beginning when the pains became regular every 20 minutes. In the cases delivered in the lying-in shelter, we had to depend upon the judgment of medical students

as to the time of onset of labor. The termination of labor was considered as the end of the second stage. All of the cases delivered in the hospital were sedated with intravenous sodium pentobarbital and scopolamine hydrobromide or intravenous demerol and scopolamine.

In the group of primiparas there were 75 cases with hemoglobins above 11 grams per 100 c.c. of blood and 30 cases with values below this. The average time of labor for the first group was 14 hours and 46 minutes, and for the latter group 19 hours and 27 minutes. In other words, the average time of labor in the anemic group was 32 per cent greater than in the group with hemoglobins 11 or above (table 1).

Table 1
Primiparas

	No. of cases	Average time of labor	Per cent longer labor
Hemoglobins of 11 grams or above	75	14 hr., 46 min.	•%
Hemoglobins of less than 11 grams	30	19 hr., 27 min.	32

In the group of primiparas there were 18 cases of occiput posterior with an average time of labor of 14 hours and 48 minutes, so we may exclude this as a factor in the above results.

In the group of multiparas delivered in the lying-in shelter, there were 63 cases with hemoglobins above 11 grams and 21 below. The average time of labor in the first group was 11 hours and 52 minutes and in the anemic group 15 hours and 45 minutes.

In the group of multiparas delivered in the hospital, there were 65 cases with 11 grams of hemoglobin or better and 36 cases with less than 11 grams. The average time of labor in the nonanemic group was 8 hours and 37 minutes, and the latter group 23 hours 50 minutes.

If we take the two groups of multiparas together, we find the average time of labor

of the patients with hemoglobins above 11 to be 10 hours and 13 minutes, and in those below the average was 20 hours and 52 minutes. The labors in the anemic group were found to be twice as long as in the non-anemic (table 2).

Table 2
Multiparas

	No. of cases	Average time of labor	Per cent longer labor
Hemoglobins of 11 grams or above	128	10 hr., 22 min.	
Hemoglobins of less than 11 grams	57	20 hr., 52 min.	104

In the group of 101 multiparas delivered in the hospital, there were 13 cases of occiput posterior or 12.8 per cent. Nine of the patients had hemoglobins above 11 and their average time of labor was 10 hours and 30 minutes, which compares closely with the total time of labor for all multiparas with hemoglobins above 11. There were 4 cases of occiput posterior with hemoglobins below 11 grams per 100 c.c., and their average time of labor was 33 hours and 25 minutes. This is somewhat longer than the average for nonanemic cases, but one case had a hemoglobin of only 9 grams and had dystocia for 72 hours before going into true labor and pushing the head into the mid-pelvis, where the posterior position might become a factor in prolonging labor. Therefore, we conclude that occiput posterior presentation had little to do with our final results.

We would now like to analyze our cases for the incidence of the dystocia dystrophy syndrome in the anemic and nonanemic groups. We define dystocia dystrophy as an abnormal labor in which the uterine contractions are irregular in frequency, duration, and amplitude with a high intercontraction tone. Many causes have been ascribed to this condition, chief of which is a disproportion between some part of

the pelvis and the fetus. Other causes are mechanical obstruction by tumors, undue anxiety of the mother, hypopituitarism, pendulous abdomen, overstretching of the uterus by multiple pregnancy and polyhydramnios, toxemia of pregnancy, dehydration, and rigidity of the soft parts. With one or two exceptions, we have not been able to find anemia listed as a cause of dystocia in the literature of the past 30 years or in any standard textbooks.

In the total series there were 31 cases of dystocia dystrophy syndrome, or prolonged labor. This amounted to 20 cases or 23 per cent of the anemic group, and 11 cases or 5.4 per cent of the nonanemic group. From this, it can be seen that the chances of the anemic gravida woman developing dystocia is 4.2 times as great as in the nonanemic women in this series.

Following are cited the case histories of some of our prolonged labors with anemia. In them one will note our supportive treatment by blood, parenteral fluids, morphine, other sedatives, magnesium sulfate and oxygen.

CASE REPORTS

Case 1. White primipara, aged 22, height 5 feet 4 inches, pregnant at term with normal urine and blood pressure and a weight gains from 107 to 129 pounds. There were no complications except anemia, hemoglobin 9 grams per 100 c.c. of blood in spite of the ingestion 1 gram ferrous sulfate daily throughout pregnancy; R.B.C. 3,340,000, Rh positive type O. She possessed a large gynecoid type pelvic inlet anteroposterior diameter 12 cm. transverse, 13 cm. with wide midpelvis. She entered false labor with uterine contractions 20 to 40 seconds in duration every 20 minutes. The interval shortened to 3 to 10 minutes, but the contractions remained variable in duration and intensity for 24 hours. During this time she had not enough discomfort to warrant drug therapy for pain relief. The fetal presentation was occiput anterior at all times, with the head in the pelvic cavity and the fetal heart rate 140 of good quality. The cervix dilated to 4 cm. and the head was low at 2 cm. below engagement. At that time she was given morphine sulfate gr. $\frac{1}{4}$ hypodermically and magnesium sulfate 2 Gm. in 20 c.c. of sterile distilled water intravenously. She had little discomfort from her uterine contractions which continued irregularly and variable in duration and amplitude for 8 hours. She was then given intravenously 1000 c.c. of 5 per cent dextrose solution in sterile distilled water. Irregular uterine contractions continued for another 7 hours when she was given 50 mg. demerol intramuscularly, and 500 c.c. transfusion of citrated blood. Four hours following this her uterine contractions became more regular at 4 to 5 minutes and more distressing. She was given pentobarbital gr. 3, and scopolamine gr. 1/125 intravenously.

True labor continued to full dilatation and subsequent spontaneous delivery 11 hours after the blood transfusion. The female infant weighed 8 pounds and 3 ounces with measurement of the fetal head as follows: biparietal 10 cm. and suboccipitophragmatic 9.75 cm. It cried spontaneously and was slightly depressed. The total number of hours of continuous false and true labor was 50 hours.

Case 2. This 18-year-old medium type, married colored female gravida 2 para 1, was admitted to the hospital on November 9, 1947 at 2:00 p.m. in early labor. The onset of regular contractions was about 1:00 a.m. of the same day.

In 1946 she had a spontaneous abortion at three months.

On admission the blood pressure readings were 120/70 and the pulse rate was 80, and regular. The abdomen was distended with an intrauterine pregnancy. The height of the fundus was 28 cm. The position of the fetus was L.O.A. and the fetal heart rate was 144. On rectal examination the cervix was 20 per cent effaced and 1 cm. dilated. The station of the head was minus 3.

X-ray examination revealed the pelvic inlet to be 10 cm. in the anteroposterior diameter and 11.5 cm. in the transverse. A lateral film showed a cephalic presentation with the head barely engaged with the occiput anterior.

Urinalysis showed nothing significant. The hemoglobin was 10.5 grams per 100 c.c. The R.B.C. was 4,870,000; W.B.C. was 10,250 with a normal differential.

During the patient's first 13 hours of hospitalization she had regular pains every 15 minutes, which lasted for 30 seconds. During this time her progress was nil.

She then began to have pains every 5 minutes, lasting for 40 seconds. At the end of 5 1/2 hours the cervix was 5 cm. dilated, 75 per cent effaced and the head was at a station of plus 1. Sodium pentobarbital gr. 3 1/4 with hyoscine gr. 1/100 was administered intravenously for amnesia and analgesia. Labor continued steadily, and in the next hour the pains increased in frequency until they were 3 minutes apart. Four hours later the cervix was almost completely dilated, but the patient was bleeding slightly. Five hundred cubic centimeters of blood were started and a tight binder was applied to the abdomen. The fetal heart tones were good at 140. One hour later the membranes ruptured and 22 minutes later there was a spontaneous delivery of a 7 pound and 12 ounce male, who breathed and cried spontaneously. A left mediolateral episiotomy was done, under a pudendal block with 1 per cent procaine.

The biparietal and S.O.B. diameters were 9.5 cm. each.

The total time of labor was 25 hours and 22 minutes.

Case 3. This 22-year-old gravida 4, para 3, medium type, married white female, entered the hospital on November 19, 1947 complaining of backache and intermittent abdominal cramps over a period of 5 hours. Her expected date of delivery was November 24, 1947.

The past history revealed that with her first pregnancy she had convulsions and delivered a full term stillborn infant. Her other pregnancies occurred in 1941 and 1943, and were terminated spontaneously with two living infants, each weighing close to 7 pounds.

On admission the pulse rate was 76 and the blood pressure readings were 130/90. The abdomen was distended with an intrauterine pregnancy. The height of the fundus was 27 cm. The fetal heart rate was 140. On rectal examination the cervix was not effaced or dilated.

A lateral x-ray study of the abdomen showed a full term fetus, cephalic presentation, head floating with the occiput transverse.

Laboratory examinations disclosed nothing of note in the urine. The hemoglobin was 5.5 grams per 100 c.c. of blood and the R.B.C. count was 2,770,000. W.B.C. and differential were within normal limits. The blood was type O, and Rh negative.

The patient was in the hospital 5 hours before any Rh negative blood could be obtained and then only 250

c.c. could be found. She was given this immediately. During her first 24 hours of hospitalization the pains varied in frequency from 3 to 30 minutes and in duration from 15 to 40 seconds. There was complete relaxation of the uterus between pains and the cervix dilated to 3 cm.

After 25 hours' hospitalization the patient appeared slightly dehydrated, so 1000 c.c. of 5 per cent glucose in water were given intravenously. This was followed by 500 c.c. of type O Rh negative blood. At the end of 28 hours the contractions had not abated and no further progress was noted. Morphine sulfate gr. 1/4 was given by hypodermic, and 20 c.c. of 10 per cent magnesium sulfate were administered intravenously.

For the next 5 hours the contractions became very infrequent, with the patient sleeping at intervals for 15 to 20 minutes. At the end of this time the pains returned every 5 to 10 minutes, but with incomplete relaxation of the uterus. The fetal heart slowed to 116, so nasal oxygen was started. The period of dystocia lasted for about 1 1/2 hours when the uterus again relaxed between contractions, which occurred every 3 to 4 minutes and lasted from 20 to 50 seconds.

After 38 hours hospitalization another 500 c.c. of type O Rh negative blood were given and the patient was given morphine sulfate gr. 1/4 by hypodermic to allow her to rest. The contractions continued every 5 to 12 minutes for the next 5 hours with the patient sleeping at short intervals. This was followed by a 2-hour period of dystocia, after which the patient went into true labor with contractions every 3 minutes lasting for 45 seconds.

The pains continued strong and frequent for the next 4 hours, at the end of which time there was a spontaneous delivery of a 5 pound and 3 ounce living female who breathed and cried spontaneously.

The total time of labor was 56 hours and 10 minutes. The biparietal and S.O.B. diameters were each 9 cm.

Case 4. This 24-year-old medium type, married white female, gravida 5, para 0, entered the hospital at 2:00 a.m. on January 7, 1948. She placed the onset of regular contractions 3 hours prior to admission.

The past history revealed that this patient had had 4 spontaneous abortions at 3 months during the past 3 years.

The pulse rate was 80 and regular, and the blood pressure 140/100. The position of the fetus was R.O.A. and the fetal heart rate was 140. The cervix was 25 per cent effaced and 2 cm. dilated. The station of the head was 0.

The hemoglobin was 9.9 grams per 100 c.c., with R.B.C. of 3,440,000. W.B.C. count was 14,150 with 88 per cent neutrophiles.

X-ray pelvimetry showed the A-P diameter of the pelvic inlet to be 12 cm., and transverse diameter 13 cm. The ischial spines were wide.

On admission the uterus was contracting every 3 to 5 minutes for 35 to 45 seconds. The pains continued for the next 3 1/2 hours. At the end of this time the cervix was 35 per cent effaced and 3.5 cm. dilated with the head at station plus 1. The patient was then given sodium pentobarbital gr. 3 with hyoscine gr. 1/125 intravenously.

During the next 4 hours the patient continued having contractions, but apparently did not feel much pain.

At the end of this time the contractions became irregular and began to get farther apart. Three and one half hours later the contractions practically ceased, and the patient was out of bed and walking around. However, she did complain of nagging pains in her back for which she was given 2.5 mg. of dolophine intravenously without relief.

Two hours later the uterus began contracting every 2 to 3 minutes for 30 to 60 seconds. This continued for 3 hours without any further progress and the patient was given 500 c.c. of whole blood. As soon as the transfusion was completed the uterus began contracting every 2 minutes for 60 seconds. The patient was then given sodium pentobarbital gr. 2 5/8 with hyoscine gr. 1/140 intravenously.

Two hours 35 minutes later the membranes ruptured.

Five minutes following this a 5 pound and 12 ounce living male infant was delivered over a left mediolateral episiotomy. The infant did not require artificial resuscitation.

The biparietal and S.O.B. diameters were each 9.5 cm. The total time of labor was 22 hours and 40 minutes.

Case 5. A slender type married colored female, gravida 8, para 4, was admitted from the clinic on October 17, 1947, with a diagnosis of polyhydramnios.

The past obstetric history revealed that this patient delivered identical twins on October 25, 1941, after a labor of 9 hours. The infants weighed 4 pounds, and 4 pounds 14 ounces respectively. Previous to this she delivered a 7 pound baby in January 1940. In early 1942 she had a three months' miscarriage, and later that year gave birth to a full term stillborn infant. In October 1945 she again had a miscarriage at 3 months. In December 1944, after a labor of 58 hours, there was a spontaneous delivery of a 7 pound and 1 ounce living female infant.

On the present admission it was learned that the last menstrual period had been on February 19, 1947. The expected date of delivery was November 26, 1947.

The examination revealed a markedly distended abdomen. The height of the fundus was 24 cm. No fetal parts were felt, and the fetal heart was not then heard. There was slight edema of the ankles. The blood pressure readings were 120/80, and the pulse rate was 80 and regular.

Laboratory examination of the voided urine showed a trace of albumin and a large number of pus cells. The blood hemoglobin was 9 grams; R.B.C. count was 3,080,000; and W.B.C. 5,000, with a normal differential.

A lateral x-ray study of the abdomen revealed an 8 month fetus, cephalic presentation, head floating, with the occiput anterior. X-ray study of the pelvic inlet made in 1944 revealed A-P diameter of 11 cm., and transverse diameter of 10 cm.

The patient was treated for 3 days with a salt free diet and 60 grains of ammonium chloride daily. At 2:00 a.m. of the fourth day, the patient began to complain of intermittent lower abdominal cramps, about 10 to 15 minutes apart. This continued for the next 15 hours when the pains became almost continuous with a high intercontraction tone.

At this time there was no dilation or effacement of the cervix. It was then decided to give the patient morphine gr. $\frac{1}{4}$ and magnesium sulfate 20 c.c. of 10 per cent strength intravenously. This was followed in a few minutes by 500 c.c. of whole blood. For the next two hours the patient rested well and the uterus relaxed. She then awoke with hard regular contractions every 2 minutes lasting 45 seconds. One hour later the membranes ruptured, with the copious expulsion of much fluid, estimated to be 1500 c.c. The fetal heart tones were then heard for the first time.

For the next 1 $\frac{1}{2}$ hours labor progressed rapidly. The cervix was then 6 cm. dilated, and 60 per cent effaced. Intravenous analgesia with demerol or pentobarbital and hyoscine was decided against because of its depressant effect on the premature infant. Therefore intrathecal saddle-block was done with 2.5 mg. of hyperbaric npercaine. Results were excellent. One hour later the cervix was completely dilated, but the fetal heart rate had slowed to 100, so nasal oxygen was started. Forty-five minutes later there was a spontaneous delivery of a 3 pound and 13 ounce living female infant who breathed and cried spontaneously.

The infant expired on the second day, and a post-mortem examination revealed atresia of the esophagus.

The total time of labor was 21 hours and 10 minutes. Of this time, 14 hours and 30 minutes were spent in false labor and dystocia.

Case 6. This 26-year-old slender type married white female, gravida 3, para 2, was admitted at 10:30 p.m. on November 7, 1947.

She stated that she had been having backache and irregular pains for 12 hours previous to admission. Her pains became regular about 3 hours previous to admission.

The past history revealed that she had a cesarean section with her first pregnancy, because of bleeding, and the baby did not survive. Her second delivery occurred in 1943 after 2 $\frac{1}{2}$ days of labor.

On admission the temperature was 98.6 F., the pulse was 86 and regular and the blood pressure 125/70. The uterus was distended with what appeared to be a near-term intrauterine pregnancy. The height of the fundus was 26 cm. The position of the fetus was R.O.T. and the fetal heart rate was 148. The uterus was contracting every 5 minutes for 35 to 45 seconds. On rectal examination, the cervix was found to be 30 per cent effaced and 1 cm. dilated.

A lateral x-ray study of the abdomen showed a small fetus, cephalic presentation, occiput transverse, with head at station minus 1.

Urinalysis showed no abnormality. The hemoglobin was 10.7 Gm. per 100 c.c. with 3 $\frac{1}{2}$ million R.B.C.; the W.B.C. and differential were within normal limits.

For the next 10 hours the patient continued having pains every 3 to 5 minutes lasting from 30 to 45 seconds with backache between contractions and a somewhat increased tonus of the uterus. There was absolutely no progress during this time. The patient was then given 20 c.c. of 10 per cent magnesium sulfate intravenously and the contractions became very irregular and lasted only 30 seconds. Four hours later, however, the high tone of the uterus had returned and the magnesium sulfate was repeated. At the same time morphine sulfate gr. $\frac{1}{4}$ was given by hypodermic. The patient rested well for the next 4 hours. At the end of this time she began to complain of backache and vomited several times. This was treated with intravenous glucose containing 20 c.c. of 10 per cent magnesium sulfate. The irregular contractions and backache continued for the next 24 hours, at the end of which time 500 c.c. of whole blood were started in the vein. After she received 300 c.c., she had a chill and the blood was discontinued. For the next 5 hours the patient continued to complain of intermittent contractions and backache. One hundred milligrams of demerol was given intravenously. Two hours later the patient went into hard labor, with contractions occurring every 3 minutes, lasting for 40 seconds. The uterus completely relaxed between pains. After 1 hour and 30 minutes the cervix was 6 cm. dilated and 75 per cent effaced, so the patient was given hyoscine gr. 1/100 intramuscularly. Thirty-seven minutes following this the membranes ruptured and 3 minutes later there was a spontaneous delivery of a 4 pound and 11 ounce male, who breathed and cried immediately.

The biparietal diameter was 9 cm. and the S.O.B. diameter was 9.5 cm.

This patient stayed in dystocia and false labor for 51 hours. When her uterus began to contract properly it took only 2 hours and 20 minutes to expel the fetus.

Case 7. This 30-year-old moderately stout married white female, gravida 4, para 2, was admitted to the hospital on October 29, 1947, complaining of irregular abdominal pains of 36 hours duration, every 10 or 15 minutes.

The past history showed that she had two living children born spontaneously in 1944 and 1941. The last labor was only 3 $\frac{1}{2}$ hours. She also had one spontaneous abortion at two months.

On physical examination the pulse rate was 76 and regular; the blood pressure 140/85. The abdomen was distended with a pregnant uterus, the height of which was 30 cm. The position of the fetus was R.O.T. The fetal heart rate was 132. On rectal examination the cervix was 30 per cent effaced and 2 cm. dilated. The station of the fetal head was 0.

A lateral x-ray study of the abdomen showed a cephalic presentation, occiput transverse, head flexed and the vertex at station 0.

The urinalysis was noncontributory. The hemoglobin was 10.5 grams per 100 c.c. with 3,620,000 R.B.C. The W.B.C. and differential were within normal limits.

Within two hours after admission the pains began coming every 3 to 5 minutes, and lasting for 30 to 50

seconds. Because the pains were somewhat irregular, the patient was given 20 c.c. of 10 per cent magnesium sulfate intravenously. This did not seem to change the character of the contractions. Four hours later the pains had slowed down to every 15 minutes and were lasting only 20 seconds. Five hours later the pains were irregular, 30 minutes apart, and about 1 hour later they had stopped. At this time the cervix was the same as on admission. The patient had been in false labor for 48 hours.

The patient remained comfortable for the next 24 hours and was given 500 c.c. of whole blood and dismissed on October 31, 1947.

She returned at 3:00 a.m. on November 3, 1947, complaining of labor pains every 3 minutes. She gave as the onset of her present pains 1 hour previous to admission. Uterine contractions continued strongly every 2 minutes, lasting for 40 seconds; and after 2 hours and 45 minutes of true labor, the patient spontaneously delivered an 8 pound and 15 ounce male who breathed and cried spontaneously. One hour previous to delivery the patient received sodium pentobarbital gr. 3 $\frac{3}{4}$ with scopolamine gr. 1/100 intravenously.

The biparietal and S.O.B. diameters were each 10 cm.

Case 8. This 18-year-old slender type married white female, gravida 1, para 0, was admitted to the hospital at 2:45 a.m. on October 28, 1947. On admission she stated that she had been having intermittent backache and irregular abdominal pains for the past 12 hours. One hour before admission the pains began coming every 5 minutes.

The pulse rate was 80 and the blood pressure 120/80. The height of the fundus was 28 cm. The position of the fetus was L.O.T. and the fetal heart rate was 144. The station of the fetal head was minus 1. The cervix was 40 per cent effaced and 1 cm. dilated.

X-ray pelvimetry showed an adequate pelvis with an A-P diameter of 11.5 cm., and a transverse diameter of 12 cm. A lateral x-ray study showed a full term fetus, cephalic presentation, occiput transverse with the head at minus 1.

The urinalysis was noncontributory. The hemoglobin was 10 grams per 100 c.c. of blood, and the R.B.C. was 3,340,000. The W.B.C. was 14,250, but the differential was within normal limits.

On admission the contractions were occurring every 5 minutes and lasting 30 to 35 seconds. One hour later the pains were somewhat lighter and farther apart. This continued for another 2 hours when 20 c.c. of 10 per cent magnesium sulfate were given intravenously. For the next 2 hours the contractions almost ceased, but following this the patient began to complain of almost constant backache and a high tone of the uterus was noted. During the next 4 hours all pains and contractions ceased.

The patient remained in the hospital another 24 hours, during which time she had no pains. After receiving 500 c.c. of whole blood she was dismissed. She was in false labor for 12 hours.

She returned 27 days later in early labor. Her hemoglobin, on admission, was 11.5 grams per 100 c.c. Her labor was steady with regular contractions every 3 minutes, lasting 45 seconds. During labor, she received 65 mg. of demerol with hyoscine gr. 1/165 intravenously.

Twelve hours and 45 minutes of true labor were productive of a 7 pound and 9 ounce male delivered spontaneously over a left mediolateral episiotomy. The baby breathed and cried spontaneously.

The biparietal diameter was 9.25 cm., and the S.O.B. diameter was 10 cm.

Case 9. This 18-year-old medium type unmarried colored female, gravida 1, para 0, was admitted to the hospital at 9:00 p.m. November 23, 1947.

She placed the onset of regular pains at 19 hours previous to hospitalization. Eleven hours before admission she had a show of blood stained mucus. Ten hours before admission a private physician performed a vaginal examination and advised hospitalization, because the pains were so hard and frequent.

The physical examination showed the temperature to

be 98.6 F., pulse rate 90, and blood pressure 160/110. The height of the fundus was 30 cm. The position of the fetus was L.O.P., and the fetal heart rate was 140. The uterus was contracting every 2 to 3 minutes for 45 seconds with poor relaxation, and the patient was complaining of constant pain. On rectal examination the cervix was 4.5 cm. dilated, 50 per cent effaced, and the head could be felt at station minus 1.

The urinalysis showed a specific gravity of 1.034, two plus sugar, hyaline casts and occasional red and white blood cells. A repeat urinalysis two days later showed no sugar. The hemoglobin was 9.5 grams per 100 c.c. of blood, and the R.B.C. was 3,720,000. The W.B.C. was 12,500 but the differential was within normal limits.

X-ray pelvimetry showed the A-P diameter of the pelvic inlet to be 11 cm., and the transverse diameter to be 12 cm. The distance between the ischial spines was 8.8 cm. A lateral film revealed a cephalic presentation, occiput posterior, with the head at station minus 1. The placenta was high on the posterior wall, and the S.O.B. diameter was measured at 9 cm.

The patient continued having contractions every 3 to 5 minutes, lasting 45 to 70 seconds, with poor relaxation for 29 hours. During this time she received 20 c.c. of 10 per cent magnesium sulfate intravenously four times without relief of dystocia. She also received 1000 c.c. of 5 per cent glucose in water, sodium pentobarbital gr. 3 with hyoscine gr. 1/125 intravenously, and 500 c.c. of whole blood.

Since she had made no progress, she was given $\frac{1}{2}$ gr. morphine sulfate by hypodermic. In 30 minutes the patient had relaxed well and the contractions became irregular every 15 to 20 minutes, but lasting for 60 seconds. During the next 4 hours the dilation of the cervix became complete and then the contractions began coming every 3 to 4 minutes and lasting 45 to 50 seconds. After 1 hour and 25 minutes there was a spontaneous delivery of a 6 pound and 11 ounce female infant which cried and breathed almost immediately. The biparietal diameter was 8.5 cm., and the S.O.B. diameter was 9 cm.

The total time of labor was 34 hours and 45 minutes.

Case 10. This 20-year-old slender type married colored female, gravida 1, para 0, was admitted to the hospital on December 13, 1947 at 10:30 p.m.

She stated that she had been having mild irregular pains for 24 hours previous to admission, which became regular every 15 minutes, 2 $\frac{1}{2}$ hours before coming to the hospital.

On examination the blood pressure readings were 130/90 and the pulse rate was 76 and regular. The height of the fundus was 26 cm., and the position of the fetus was L.O.T. The fetal heart rate was 120. No dilatation or effacement was noted on rectal examination.

A urinalysis revealed nothing abnormal. The hemoglobin was 10 grams per 100 c.c., with a R.B.C. of 3,400,000. The W.B.C. was 14,000 but the differential was within the normal range.

X-ray pelvimetry showed the A-P diameter of the pelvic inlet to be 11 cm., and the transverse diameter 11.75 cm. The ischial spines were not prominent. A lateral film showed a full term fetus, cephalic presentation, occiput transverse with the head at station minus 3. The placenta was seen high on the anterior wall.

Within 30 minutes after admission the contractions began coming every 1 to 5 minutes and lasting from 30 to 50 seconds. This continued for 13 $\frac{1}{2}$ hours with no evident progress except for a slight thinning of the cervix and the head came down 2 cm. During this time the patient was given sodium pentobarbital gr. 3 $\frac{3}{4}$ with hyoscine gr. 1/100 intravenously. She also received 1000 c.c. of 5 per cent glucose in water per venoclisis. Eleven hours after the barbiturate she was given morphine sulfate gr. $\frac{1}{2}$ subcutaneously and 20 c.c. of 10 per cent magnesium sulfate intravenously, followed closely by 500 c.c. of whole blood.

The pains almost ceased for 3 hours and the patient slept at long intervals. When she awoke the contractions began coming every 1 $\frac{1}{2}$ to 3 minutes and lasting from 20

to 50 seconds, with poor relaxation between pains and almost constant discomfort in the back. During this period the fetal heart rate increased to 160, so nasal oxygen was started. After 4½ hours of dystocia, morphine sulfate gr. ¼ was repeated. In spite of this the abnormal uterine contractions continued for 2 hours and there was no evidence of further progress.

The patient was then given 20 c.c. of 10 per cent magnesium sulfate intravenously, following which the pains became regular every 2 minutes with a duration of 45 seconds.

In 10 hours there was a spontaneous delivery of a 6 pound and 14 ounce female infant, somewhat cyanotic but not requiring artificial resuscitation. The biparietal diameter was 9.5 cm, and the S.O.B. diameter was 9 cm.

Five hours before delivery the patient was given demerol 40 mg. with hyoscine gr. 1/250 intravenously, and 30 minutes before delivery she received sodium pentobarbital gr. 1½ with hyoscine gr. 1/200 by the same route.

The total time of labor was 35½ hours.

Case 11. A 21-year-old medium type married colored female, gravida 2, para 1, was admitted to the hospital at 2:00 p.m. December 16, 1947, from the lying-in shelter with a diagnosis of false labor and anemia.

Her first pregnancy in 1942 was terminated spontaneously after a 2 hour labor. She stated that the baby was full term, but did not know its birth weight.

The present labor began 19 hours previous to her admission to the hospital. Two hours after the onset she entered the lying-in shelter with pains every 5 to 6 minutes, lasting from 30 to 90 seconds with poor relaxation. The contractions continued for 4 hours when the patient was given 20 c.c. of 10 per cent magnesium sulfate intravenously. The high intercontraction tone subsided immediately and the pains became grossly irregular every 4 to 5 minutes, with a duration of 20 to 40 seconds. There was no change in the contractions and the patient was admitted to the hospital 17 hours later. The membranes ruptured on the trip to the hospital.

The examination disclosed the temperature to be 99.2 F. The pulse rate was 94 and regular, and the blood pressure 115/85. The height of the fundus was 30 cm., and the position of the fetus was R.O.P. The fetal heart rate was 140. On rectal palpation the cervix was not effaced or dilated and the head was floating.

Urinalysis showed 2 plus albumen with many pus cells and occasional W.B.C. casts. The hemoglobin was 10.3 grams per 100 c.c., with a R.B.C. of 3,600,000.

A lateral x-ray study of the abdomen revealed a full term fetus, cephalic presentation, occiput posterior, with the head floating. The S.O.B. diameter was measured as 8 cm. The placenta was seen on the posterior wall of the uterus.

The first 3 hours of the patient's hospitalization was marked by the absence of any labor pains and complete relaxation. She then began to have contractions every 3 to 4 minutes lasting from 30 to 40 seconds, with poor relaxation. Five hundred cubic centimeters of whole blood were administered. Four hours later demerol 50 mg. with hyoscine gr. 1/200 was given intravenously and almost immediately the uterus began to relax between pains. At the same time the fetal heart rate was over 160, so nasal oxygen was started and 1000 c.c. of 5 per cent glucose in water were given to prevent dehydration. At this time the head was engaged at station minus 1, and the cervix was 75 per cent effaced and 2 cm. dilated.

For the next 4 hours the contractions occurred every 5 minutes, but lasted only 15 to 25 seconds. The pains then began to last 40 seconds. The cervix at this time was 4 cm. dilated and demerol 40 mg. with hyoscine gr. 1/333 was given by vein. During the next 6 hours the pains gradually became less frequent and finally ceased.

At this time 1 gram of calcium gluconate was given intravenously and contractions of an irregular nature began again. They gradually became less frequent during the next 3 hours and the calcium was repeated. Following this contractions occurred every 5 minutes for

45 seconds. During the next 4 hours the dilation and effacement of the cervix was completed. Demerol, 40 mg., with hyoscine gr. 1/333 was given intravenously, and 10 minutes later the patient spontaneously delivered a 6 pound and 15 ounce male infant who breathed and cried immediately.

The total time of false and true labor was 42 hours and 55 minutes.

Case 12. A 19-year-old somewhat obese type married white female, gravida 1, para 0, was admitted to the hospital at noon on December 23, 1947. She stated that her pains began 7½ hours before admission and became regular every 20 minutes, 7 hours before coming to the hospital. She gained 40 pounds during the pregnancy and had noticed some slight swelling of the ankles during the past month, but there had been no subjective symptoms of toxemia.

The pulse rate was 92 and regular, and the blood pressure 150/90. The height of the fundus was 29 cm. The position of the fetus was L.O.P., and the fetal heart rate was 152. On rectal examination the cervix was 20 per cent effaced and 2 cm. dilated. The station of the head was minus 1.

The urine contained 1 plus albumin. The hemoglobin was 10 grams per 100 c.c., and the R.B.C. was 3,810,000. The W.B.C. was 12,500, but the differential was within normal range.

X-ray pelvimetry showed the obstetric conjugate to be 11.5 cm., and the transverse diameter to be 13 cm. The ischial spines were very wide. A lateral film showed a full term fetus, cephalic presentation, occiput transverse, at station minus 1. The placenta was seen high on the anterior wall.

On admission the contractions were occurring every 7 minutes and lasting for 30 seconds. During the next 2 hours the pains increased in frequency to every 5 minutes and in duration to 45 seconds. However, one hour later the contractions became irregular every 4 to 9 minutes, with poor relaxation, and the patient complained of almost constant pain. This continued for another 3 hours without progress and the patient was given morphine sulfate gr. ¼ subcutaneously and 500 c.c. of whole blood.

Two hours later the contractions were more regular, every 2 to 4 minutes, and lasting 35 to 40 seconds. The intercontraction tone was still too high, but better than previously. During the next 3 hours progress was steady, and at the end of that time the membranes ruptured. One hour later the cervix was 60 per cent effaced and 5 cm. dilated and sodium pentobarbital gr. 3 with hyoscine gr. 1/125 was given intravenously. One hour and 27 minutes later there was a spontaneous delivery of a 6 pound and 3 ounce living male who breathed and cried almost immediately. The infant was delivered after a left mediolateral episiotomy had been done. The biparietal and S.O.B. diameters were each 8 cm.

The total time of labor was 20 hours and 27 minutes. This patient suffered with severe dystocia for 4 hours.

Case 13. This 23-year-old somewhat obese type, married colored female, gravida 1, para 0, entered the hospital at 7:30 p.m. on January 11, 1948. She attended our prenatal clinic and we noted a 15 pound increase in weight during her pregnancy. She placed the onset of regular pains 15½ hours prior to admission.

Examination disclosed the pulse rate to be 82 and regular, and the blood pressure 140/90. The height of the fundus was 23 cm. The position of the fetus was L.O.A. and the fetal heart rate was 136. On rectal examination the cervix was 30 per cent effaced and 1 cm. dilated, with the head floating. There was slight edema of the ankles.

The urinalysis showed a trace of albumin. The hemoglobin was 10.5 grams with a R.B.C. of 4,800,000. The W.B.C. and differential were within normal range.

X-ray pelvimetry revealed the A-P diameter of the pelvic inlet to be 10.5 cm., and the transverse diameter 11.5 cm. The ischial spines were somewhat prominent. A lateral film showed a full term fetus, cephalic presentation, occiput anterior with the head floating. The placenta was visualized high on the posterior wall.

During the first 17 hours of hospitalization, the uterine contractions were irregular, every 3 to 8 minutes, but were 45 seconds in duration. At the end of this time the cervix was 50 per cent effaced and 4 cm. dilated. The station of the fetal head was 0. In the latter part of this period the membranes ruptured.

The pains then became irregular every 5 to 10 minutes, with duration of only 20 to 40 seconds. A diagnosis of false labor was made and the patient was given 500 c.c. of whole blood. The false type of labor continued for 10 hours, when the contractions became more frequent every 3 to 4 minutes. This lasted for 2 hours and the head came down to station plus 1.

During the next 5 hours the contractions ceased and the patient slept. Following this the pains returned every 4 to 5 minutes, with duration of 25 to 45 seconds. After 4 hours the contractions increased in frequency to every 1 to 3 minutes. There had been no further progress, so the patient was given morphine sulfate gr. $\frac{1}{4}$ and 20 c.c. of 10 per cent magnesium sulfate intravenously, and another 500 c.c. of blood.

The patient rested quietly with only occasional pains for the next 7 hours. The contractions then returned every 5 to 8 minutes with duration of 40 seconds.

During the next 2 hours the cervix became almost fully dilated and the head came down to station $1\frac{1}{2}$.

For the next 6 hours the somewhat irregular contractions continued with absolutely no progress. Morphine sulfate gr. $\frac{1}{4}$ was repeated. Following this medication there was no change in the character of the contractions for 3 hours, when the pains became harder, every 5 minutes; and in 5 hours the head was resting on the perineum. Two and one-half milligrams of nupercaine were then instilled into the intrathecal space, producing a saddle-block, and a 7 pound and 4 ounce living female infant was extracted from L.O.A. presentation with Keiland forceps. The infant cried spontaneously and was not depressed.

The biparietal diameter was 9.5 cm., and the S.O.B. diameter was 9.75 cm.

The total time of labor was 76 hours.

The patient was supported through labor with 4000 c.c. of 5 per cent glucose in water, and nasal oxygen was administered for the fetus.

In addition to morphine, the patient received sedation with demerol 70 mg. and sodium pentobarbital gr. $2\frac{1}{4}$ at strategic times during labor. Both drugs were given intravenously and combined with hyoscine.

Case 14. This 25-year-old medium type married white female, gravida 2, para 1, entered the hospital January 13, 1948 at 9:30 p.m. On admission she stated that she had been having irregular contractions every 10 to 15 minutes for $1\frac{1}{2}$ hours.

Her first pregnancy in 1945 was productive of a 7 pound and $7\frac{1}{2}$ ounce living male infant after what she described as a short labor.

Examination showed the pulse rate to be 80 and the blood pressure 120/80. The position of the fetus was L.O.A., and the fetal heart rate was 140. On rectal palpation the cervix was not effaced or dilated and the head was floating.

The hemoglobin was 10.8 grams per 100 c.c., and the R.B.C. was 3,350,000. W.B.C. and differential were within normal limits.

X-ray pelvimetry showed the A-P diameter of the pelvic inlet to be 11 cm. and the transverse diameter 12 cm. The ischial spines were wide.

The irregular contractions continued for the first 12 hours of hospitalization in spite of the administration of 30 mg. of demerol intravenously. This drug was chosen instead of morphine because of the previous history of short labor.

The patient had made no progress and the contractions were lasting only 10 to 20 seconds, so morphine sulfate gr. $\frac{1}{4}$ was given subcutaneously and 20 c.c. of 10 per cent magnesium sulfate were administered per vein. For the next 5 hours the patient slept.

She awoke with contractions every 2 to 3 minutes, lasting for 45 seconds. In 5 hours and 6 minutes there was a spontaneous delivery of a 7 pound and 10 ounce living

female infant, who did not require artificial resuscitation.

One hour before delivery the membranes ruptured without interference.

Three hours before delivery the patient received sodium pentobarbital gr. 3% with hyoscine gr. 1/110 intravenously.

The biparietal diameter was 9.75 cm., and the S.O.B. diameter was 10 cm.

The total time of labor was 32 hours 6 minutes.

Case 15. A 20-year-old slender type gravida 2, para 1, married colored female was admitted to the hospital at 3:15 p.m. on January 3, 1947, from the lying-in shelter, because of anemia and false labor.

The patient placed the onset of her contractions 23 hours previous to hospitalization. She had been having irregular contractions every 2 to 5 minutes varying in duration from 25 to 40 seconds.

Her first pregnancy had resulted in the spontaneous home delivery of a 6 pound and 4 ounce live baby after an 18-hour labor.

Examination revealed a pulse rate of 92 and regular, a blood pressure of 130/80. The height of the fundus was 30 cm. The presentation of the fetus was L.O.A. and the fetal heart rate was 140. The cervix was 2 cm. dilated and 60 per cent effaced. The station of the head was minus 1.

X-ray pelvimetry showed the A-P diameter of the pelvic inlet to be 11.5 cm., and the transverse diameter 11.7 cm. A lateral film showed a full term fetus, cephalic presentation, occiput anterior with the station of the head minus 2. The biparietal diameter was 10 cm. The placenta was seen high on the posterior wall.

Urinalysis showed no pathologic elements. The hemoglobin was 9.5 grams per 100 c.c., and the R.B.C. was 3,440,000. The W.B.C. was 14,700, but the differential was quite normal.

Within 2 hours after admission the patient received 500 c.c. of blood, followed by 20 c.c. of 10 per cent magnesium sulfate by vein. Following this the pains became very irregular, but the membranes ruptured. However, the patient was able to sleep at intervals of 15 to 20 minutes for the next 18 hours.

She was obviously not in true labor, so after a total time of 20 hours in the hospital morphine sulfate gr. $\frac{1}{4}$ was given subcutaneously and 20 c.c. of 10 per cent magnesium sulfate were given intravenously. One hour later she received another 500 c.c. of blood.

For the next 15 hours the patient rested comfortably, with contractions as much as 1 hour apart. The patient then appeared to go into true labor with pains every 5 minutes, of 35 seconds' duration. This phase lasted for 7 hours when the uterus began to have a high intercontraction tone. At this time the cervix was only 3 cm. dilated and 60 per cent effaced, with the head at station plus 1. Demerol 90 mg. with hyoscine gr. 1/110 was given intravenously. Relaxation followed and during the next 7 hours the pains practically ceased.

At the end of this time the contractions began coming every 2 minutes, lasting for 45 seconds.

Demerol 100 mg. with hyoscine gr. 1/100 was given intravenously. Three hours later the contractions were less firm and had become 10 minutes apart. At this time 1000 c.c. of 5 per cent glucose in water were given.

Four hours later the contractions were 3 to 7 minutes apart with a duration of 50 seconds, and demerol 50 mg. with hyoscine gr. 1/200 was given intravenously. The contractions continued as before for another 4 hours, at the end of which time the cervix was 80 per cent effaced and 8 cm. dilated, with the head 2 cm. below the ischial spines. Demerol 80 mg. with hyoscine gr. 1/125 was administered intravenously.

The pains then became regular every 3 minutes, of 40 to 50 seconds duration, and this continued for the next 5 hours, at the end of which time there was spontaneous delivery of a 6 pound and 15 ounce living male infant, who breathed and cried without artificial resuscitation.

The biparietal diameter was 9.5 cm., and the S.O.B. diameter was 9.75 cm.

The total time of labor was 85 hours.

Case 16. This 21-year-old slender type married colored female, gravida 3, para 2, was admitted to the hospital from the lying-in shelter at 9:30 p.m. on January 25, 1948. Her membranes ruptured 72 hours before admission and pains began about 30 minutes later, but they did not become regular until 19½ hours prior to hospitalization when they were 10 minutes apart. This continued until admission.

With her previous pregnancies she had home deliveries. Her second labor was 26 hours and productive of a 7½ pound live baby.

The examination showed the temperature to be 100.2 F., pulse rate 140 and blood pressure 120/60. The throat showed no evidence of infection. The lungs were clear. The heart was within normal limits and no murmurs were heard. The height of the fundus was 27 cm., and the position of the fetus was L.O.A. The fetal heart rate was 160. The uterus was contracting every 3 to 4 minutes for 45 to 135 seconds. On rectal palpation the cervix was found to be 20 per cent effaced and 1 cm. dilated. The head was 1 cm. above the ischial spines.

Urinalysis showed nothing of note. The hemoglobin was 8 grams per 100 c.c. and the R.B.C. was 2,690,000. The W.B.C. was 21,350 with 88 per cent neutrophiles. Lateral x-ray study of the abdomen showed a small fetus, cephalic presentation, occiput anterior, with the head high. The placenta was seen high on the posterior wall. When the patient reached the ward nasal oxygen was started immediately because of the rapid fetal heart rate. Within an hour she was receiving 500 c.c. of whole blood.

During the patient's first 4 hours in the hospital the contractions continued every 3 to 5 minutes with a duration of 20 to 40 seconds. There was no progress, so morphine sulfate gr. ¼ was given subcutaneously, and 20 c.c. of 10 per cent magnesium sulfate intravenously.

For the next 4 hours she slept at long intervals, with only occasional light pains.

The contractions then returned every 5 minutes with a duration of 30 to 40 seconds. During the next 5½ hours the pains increased to every 3 minutes and now the cervix was 80 per cent effaced and 6 cm. dilated, with the head at station plus 2. Sodium pentobarbital gr. 1⅓ with hyoscine gr. 1/200 was administered intravenously.

One hour and 30 minutes later there was a spontaneous delivery of a 5 pound and 10 ounce living female infant who breathed and cried immediately.

The biparietal and S.O.B. diameters were each 9 cm. The total time of labor was 34½ hours.

Case 17. This 29-year-old medium type married white female, gravida 3, para 2, was first admitted to the hospital at 10:45 p.m. on October 16, 1947. She began having contractions every 10 minutes about 18 hours prior to admission.

With her second child she was in labor only about an hour. This baby weighed 7 pounds and 2 ounces.

On examination the pulse rate was 92, and the blood pressure 125/70. The mucous membranes were somewhat pale. The height of the fundus was 30 cm., and the position of the fetus was R.O.P. The fetal heart rate was 132. The cervix was not dilated or effaced and the head was not engaged.

Urinalysis showed nothing of significance. The hemoglobin was 9.5 grams per 100 c.c., and the R.B.C. was 3,220,000. The W.B.C. and differential were within normal limits.

A lateral x-ray study of the abdomen showed a full term fetus, cephalic presentation, occiput posterior with the head at station minus 3. The S.O.B. diameter was measured as 9.5 cm., and the placenta was seen high on the anterior wall.

Shortly after admission the contractions became farther apart and within 6 hours had ceased.

The patient was given 500 c.c. of whole blood and then dismissed. She had been in false labor for 24 hours.

She returned 10 days later in hard labor.

On admission the hemoglobin was 11 grams per 100 c.c. of blood.

After a labor of only 1 hour and 50 minutes she delivered spontaneously a 7 pound and 8 ounce living male infant.

The biparietal diameter was 9.5 cm., and the S.O.B. diameter was 10 cm.

Case 18. This 25-year-old medium type married white female, gravida 5, para 4, entered the hospital October 7, 1947. She had been having irregular pains in the back and lower abdomen for about three days, and before coming to the hospital she bled about ½ teaspoonful.

She was in labor 8½ hours with her last baby in 1945. The baby weighed 5 pounds.

On examination the pulse rate was 88 and regular, and the blood pressure 120/60. The height of the fundus was 29 cm. The position of the fetus was R.O.A. The fetal heart rate was 130. The cervix was not effaced but was 1 cm. dilated. The head was floating.

Urinalysis was noncontributory. The hemoglobin was 9 grams per 100 c.c., and the W.B.C. was 6,900. The R.B.C. was 2,950,000.

Lateral x-ray examination showed a full term fetus, cephalic presentation, occiput transverse with the head just beginning to engage. The biparietal diameter was measured as 10.25 cm. The placenta was seen high on the posterior wall.

The patient's first 24 hours in the hospital were uneventful. There was no bleeding and no contractions. She was given 500 c.c. of blood, which raised her hemoglobin to 11 grams per 100 c.c.

Thirty-six hours after admission the patient began having cramping pains in the lower abdomen every 15 to 20 minutes. This persisted during the next 32 hours. During this time the patient spotted intermittently and passed occasional small clots. The total amount was estimated to be 100 c.c. At the end of this time the membranes were ruptured artificially and a tight binder was applied to the abdomen.

The contractions then stopped for 10 hours and there was no more bleeding. The patient slept.

She awoke complaining of irregular pains every 15 to 20 minutes. These continued for the next 18 hours when the contractions were 6 to 10 minutes apart and 25 to 40 seconds in duration. There was no change in the next 5 hours, and on rectal palpation no progress was noted. Magnesium sulfate, 20 c.c. of 10 per cent, was given intravenously. One and one-half hours later the contractions were regular every three minutes and lasting 60 seconds. The cervix was then 60 per cent effaced, 4 cm. dilated and the occiput was level with the ischial spines. Sodium pentobarbital gr. 3⅔ with hyoscine gr. 1/100 was given intravenously.

Thirty minutes later there was a precipitous delivery of a 5 pound and 15 ounce living male infant. The baby required artificial resuscitation for 20 minutes.

The biparietal diameter was 9.5 cm., and the S.O.B. diameter was 10.25 cm.

This patient was in false labor for 55 hours. When the uterus began to contract properly she expelled the fetus in 2 hours' time.

The total time of true and false labor was 57 hours.

Case 19. This 32-year-old medium type married colored female, gravida 3, para 2, was admitted to the hospital at 7:30 p.m. on October 19, 1947. She had been having irregular contractions every 5 to 10 minutes with poor relaxation for the preceding 15 hours. During this time she was treated in the lying-in shelter. She was transferred to the hospital because of anemia and dystocia. While in the lying-in unit she received 1000 c.c. of 5 per cent glucose in water to combat dehydration.

The past obstetric history revealed that with her first child she was in labor 24 hours, and only 3 hours with her second child. The latter was born in January 1946.

On admission the pulse rate was 100, and the blood pressure 145/90. The position of the fetus was R.O.A. The fetal heart rate was 140. On rectal examination the cervix was 20 per cent effaced and 2 cm. dilated. The station of the fetal head was minus 2.

Urinalysis showed nothing of significance. The hemoglobin was 8.5 grams and the R.B.C. was 4,110,000.

The W.B.C. was 11,150 and the differential was within normal range.

On the way to the hospital the patient began to have hard regular contractions every 2 minutes, lasting for 30 seconds. Fifteen minutes later the membranes ruptured, and 22 minutes following there was a precipitous delivery of a 7 pound and 13 ounce living male infant who breathed and cried immediately.

The biparietal and S.O.B. diameters were each 9.25 cm.

The total time of labor was 15 hours 37 minutes. However, the first 15 hours were spent in false labor and dystocia.

Summary

1. From this series of cases it appears that anemia prolongs labor.

2. Anemia in labor seems to precipitate abnormal uterine contractions and increase the incidence of dystocia dystrophy.

3. Frequent hemoglobin determinations should be an integral part of prenatal care and all expectant mothers should receive the benefit of iron therapy.

4. No gravida woman should enter the last month of pregnancy with a hemoglobin of less than 11 grams per 100 c.c. of blood.

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For further information, write to Dr. M. O. Williams, Board of Missions and Church Extension, 150 Fifth Avenue, New York 11, N. Y. This is one of a large number of calls Dr. Williams has for physicians and nurses in the United States or abroad—some of them as missionaries, some, as above, as private practitioners.

POSTPARTUM HEMORRHAGE

MARION T. BENSON, JR., M.D.

Atlanta

The maternal mortality from hemorrhage has not decreased in the past 20 years. This is called to our attention in recent papers by Dieckman¹ and by Grimes². Dieckman states that hemorrhage caused 30 per cent of maternal deaths in 1944 and 1945. It is not known how many were due to postpartum hemorrhage, but from available statistics it seems that more than physiologic bleeding occurs in 1 out of 15 or 16 cases. Deaths from toxemia and sepsis have decreased markedly but not deaths from hemorrhage. The great majority of deaths from hemorrhage are preventable, and I believe the fault of postpartum hemorrhage rests squarely on the attendant and hospital rather than on the patient.

Normally a blood loss of 200 to 300 c.c. occurs during and immediately after placental separation and expulsion. This physiologic loss varies in different individuals but rarely exceeds 500 c.c. An amount such as this, or in excess, is considered a postpartum hemorrhage. The ability to lose blood without deleterious effect varies in different individuals. One patient may go into profound shock from a 500 c.c. loss, while another patient may hemorrhage close to 1000 c.c. without marked change.

Fatal hemorrhage itself is fortunately infrequent but serious sequelae that prolong the convalescence may result. It is obvious that a marked blood loss, and the resultant anemia, decrease the resistance to infection, and pathogenic organisms present in the reproductive tract, or introduced through breaks in technic or by the extra manipulations made necessary to control the hemorrhage, find a fertile field for growth.

Dieckman listed the following causes of postpartum hemorrhage:

1. Uterine atony
 - a. Incomplete separation of the placenta.
 - b. Overdistention (multiple pregnancy polyhydramnios, etc.).
 - c. Anesthesia and, to a lesser degree, analgesia.
 - d. Prolonged labor.
 - e. Tendency for postpartum hemorrhage.
2. Trauma—Duhrassen's incisions, or lacerations of vagina, cervix or uterus.
3. Abnormal placental sites or attachments.
 - a. Abruptio placenta.
 - b. Placenta previa.
 - c. Placenta accreta.
4. Neoplasms of the uterus.

To this list, I would add mismanagement of the 2nd or 3rd stage of labor, particularly the latter. Because of this, the mechanism and management of the 3rd stage are briefly reviewed.

The older authorities, particularly Frankel, believed that separation of the placenta began after expulsion of the fetus, depending on the formation of the retroplacental hematoma.

However, recent textbooks⁴ have shown this hematoma is the result, rather than the cause, of the separation. Detachment of the placenta and membranes begin with the diminution of the cavity of the uterus following descent of the fetal head and rupture of the membranes in the 2nd stage of labor. The membranes are thrown into numerous small folds as a result of having to accommodate to this decrease in size. As the uterus continues to contract and retract, its muscular wall becomes thicker and thicker and the area of placental attachment smaller and smaller, so that a period is reached, after delivery of the fetus, when the comparatively compact and inelastic placenta can no longer follow this change and is peeled away from the uterine wall and lies free in the cavity of the uterus from whence it is expelled into the flabby and collapsed lower uterine segments by further contractions. The retroplacental hematoma is formed by lesions in the continuity of the decidua basalis and probably accelerates the detachment. The membranes are further

separated by the contraction and the retraction of the uterus, and peeled off by traction from the separating placenta.

The 3rd stage is now known to average only 4 to 7 minutes. A very short time after birth of the fetus, the uterus resumes contractions and changes from a discoid-shaped organ to a globular-shaped body. The two cardinal signs of separation of the placenta are this change in shape during relaxation and the beginning of bleeding. The signs of descent of the placenta are lengthening of the cord and the rising of the fundus up to, or above, the umbilicus, or 3 to 7 cm. above the original position. When this occurs, the placenta is in the lower uterine segment, cervix or vagina, and should be delivered.

Management of the Third Stage of Labor

Dieckman has called our attention to slow delivery of the shoulders and body to allow the mechanism of placental separation to take place. There is a pause of 30 seconds between the delivery of each shoulder, and about 3 minutes in all are required. He found that slow delivery without oxytocics gave better results in the duration of the 3rd stage and blood loss, than rapid delivery with oxytocics.

As the anterior shoulder impinges under the symphysis pubis, or immediately following birth, an assistant gives the patient one unit of pituitary extract intramuscularly. Usually by the time the baby has had mucus aspirated from the respiratory passages, the cord attended to, and silver nitrate instilled into the eyes, the placenta has been detached and is ready for delivery. Signs of detachment and descent of the placenta are noted. If the placenta is delivered by the method advocated by Brandt⁵, the left hand placed just above the symphysis pubis with the palm toward the patient's head and the uterus pushed upward, at the same time moderate traction is put on the cord to deliver the placenta. If by chance the placenta is still attached, when the

uterus is pushed upward, the cord will be drawn into the vagina, so further delay is necessary. An acceptable variation of this procedure is to push the uterus downward by gentle pressure on the fundus with the left hand so that it serves as a piston pushing the placenta ahead of it. The classic Crede method of grasping the uterus with the left hand, with fingers posteriorly and thumb anteriorly, is mentioned to be condemned. It is unphysiologic, may cause injury to the uterus, and may detach the placenta and increase the blood loss. After delivery of the placenta, ergonovine 0.2 mg. is given intravenously. This procedure has been described by other authors and is used at Johns Hopkins Hospital and the Mayo Clinic.

The placenta is closely examined immediately following the delivery. If a placenta succenturiate or a cotyledon is missing, the patient should immediately be resprayed with antiseptic solution, fresh sterile drapes applied, the obstetrician should have a fresh gown and gloves, suitable antiseptic solution instilled into the vagina and the uterus invaded by the operator's hand and the missing portion of placenta removed. If the missing piece is no larger than the finger nail, or a portion of the membranes has been retained, it is better to leave such to nature. The patient remains on the table for one hour under close observation.

Grimes, Bartholomew, Colvin and Fish all have shown that either posterior pituitary in the form of pitocin 4 m. or ergonovine 0.2 mg. may be safely given intravenously before the delivery of the placenta. However, the incidence of incarceration of the placenta requiring manual removal was increased and they recommend this procedure only in cases predisposed to hemorrhage or cases bleeding severely immediately after birth. They found that pitocin when used intravenously produced oxytocic effect in one-half the number of seconds re-

quired for ergonovine and had no generalized reactions in more than 4000 cases.

Mayes, in a recent article, advocates the early manual removal of the placenta, within 20 to 30 minutes, if it does not come away readily and feels that the morbidity and mortality would be materially reduced when a difficult third stage is anticipated. Dieckman also has followed the same principle, removing the placenta at the end of an hour maximum and usually within 15 minutes.

These articles tend to expel the old fear of the intravenous use of oxytocics and the manual removal of the placenta. They are safe and life-saving procedures when used properly.

Prophylaxis

This should begin with the initial history and physical examination. History of previous postpartum hemorrhage should be noted, for it may manifest itself in successive pregnancies. This may be due to an inherent nervous or muscular deficiency which results in an abnormal third stage mechanism. While there is a physiologic increase in the blood volume during pregnancy, some women develop a rather marked anemia. This should be watched for and proper treatment instituted. Subnormal physical states and chronic diseases should be detected and combatted during the prenatal period. Fibromyomas of the uterus may increase the bleeding hazards. Neoplasm of the cervix is uncommon during pregnancy, but may cause serious or fatal hemorrhages at labor.

Prolonged and difficult labors increase the incidence of postpartum hemorrhage. The muscles of the uterus are subject to some physiologic laws, as other muscles, and long periods of work without sufficient rest lead to diminishing muscle action and tone, and uterine inertia in the 3rd stage. Hence the importance of maintaining fluid balance and allowing sufficient rest in such

cases. Analgesia and anesthesia, particularly inhalation anesthesia increase the risk. Large doses of barbiturates seem to cause a decrease of uterine tone, hence they should be judiciously and intelligently used.

An episiotomy should not be done too early in delivery. Symptoms of serious hemorrhage may develop in the 3rd stage of labor from bleeding of the episiotomy. The most opportune time for the incision is when the vulva is distended and the fetal head appears about the size of a 50-cent piece. Bleeders should be clamped and ligated. Bleeding may be controlled by pressure if not profuse, and delivery is not imminent.

The proper management of the 2nd and 3rd stage of labor has been discussed.

Cases of placenta previa should almost routinely have the uterus properly packed as a prophylactic measure, as should the more serious cases of abruptio placenta. This may also apply to certain cases of marked overdistention of the uterus from multiple pregnancies or polyhydramnios.

Treatment

First, and of utmost importance, there should be material to combat shock and replace fluids. This should consist of ample supplies of readily available saline, glucose, and plasma for immediate administration. Blood should be replaced to the amount lost, and, ideally, this should be available in a hospital blood bank with adequate typing and cross-matching facilities or in a community blood bank sponsored by the American Red Cross. It is better to treat shock before it develops.

The blood may be administered more quickly under pressure, and occasionally an arterial transfusion may be life-saving. Next every delivery room should have a hemorrhage tray always sterile and available. Nothing is more disconcerting than to have a sudden hemorrhage and then have to wait while the retractors, etc., are

being sterilized before you can find where the bleeding is coming from. This tray should contain two sponge forceps for grasping the cervix, a large vaginal retractor, a small vaginal retractor, a uterine dressing forceps, a uterine packer; uterine packs, 4 inches by 5 yards; and suitable hemostats, Allis clamps, needle holder, needles, and suture.

If bleeding occurs from inertia, the placenta is manually removed if it has not been delivered; or retained fragments removed, if inspection reveals that they still may be present. Then two fingers of one hand are introduced into the vagina, anterior to the cervix and the other hand placed on the patient's abdomen and the uterus firmly massaged with both hands. At the same time an assistant administers m. 4 of pitocin or 0.2 mg. ergonovine intravenously. This will control most cases of uterine atony. If it does not, uterine packing should be inserted also without much delay.

Mussey⁷ states that an intrauterine pack was used in 2.3 per cent of 12,000 deliveries with only three cases that the pack failed to control the hemorrhage. He uses a washed iodoform gauze, and inserts two fingers into the uterus with palm anterior. The gauze is then introduced with a dressing forceps. Some authorities, particularly Cosgrove, Baer, and Bill have disagreed with Mussey and feel that the pack defeats its own purpose by keeping the uterus distended.

My personal feeling is on the side of Mussey, although I think plain sterile gauze is safe enough and prefer to introduce it with the Broadhead packer or the loaded cartridge type packer of Torpin. The packing should be done carefully and the uterine cavity completely filled with gauze, the vagina being tightly packed to the introitus. The pack is removed in 8 to 12 hours.

It would seem that oxy-cell would be

ideal as a uterine pack. Perhaps some day it will available in a large enough quantity to introduce satisfactorily into the uterus. There is the rare case of atony that will require hysterectomy. The bleeding may be temporarily controlled by pulling the cervix down with a tenaculum and grasping the area of the uterine vessels, one on each side of the cervix, with a heavy hemostat, or compressing the abdominal aorta with folded towel and circular piece of cloth as described in the DeLee, Greenhill textbook.⁸

If hemorrhage is due to laceration of the vagina or cervix, adequate exposure is necessary by vaginal retractors, and the cervix is pulled down by sponge forceps. A few correctly placed, absorbable sutures will easily control this hemorrhage. Laceration of the uterus requires hysterectomy, of course.

It would be well to start the patient on chemotherapy or antibiotic treatment if there has been much operative manipulation or her resistance has been lowered by blood loss.

Summary

1. The incidence of obstetric hemorrhage has not decreased in the past 20 years.

2. The mechanism and management of the third stage of labor have been reviewed.
3. The prophylactic treatment and treatment of postpartum hemorrhage have been presented.

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DISCUSSION OF PAPERS BY DR. J. H. KITE AND BY DR. ARTHUR M. PRUCE

DR. PETER B. WRIGHT (Augusta): First, I want to compliment both Dr. Kite and Dr. Pruce

on their excellent presentations, and criticize them for leaving me very little to say.

As Dr. Kite has pointed out, we are seeing many more cases of metatarsus varus of late. The question as to whether the vitamins have improved clubfoot conditions and are therefore getting a milder foot deformity rather than the extreme clubfoot, is somewhat debatable, but it does make us stop and think.

Emphasis should be put on the painstaking treatment with a series of corrective plaster casts, rather than to attempt a rapid cure with surgery. There may be an occasional extreme case that will require surgery, but this will be the rare exception and not the rule. I think 99.44 per cent of the cases can be cured with a painstaking series of casts and manipulative procedures. In some of the milder cases manipulative treatment by the physiotherapist, and a pre-walking type of shoe, has been all the treatment necessary in our experience. This, or any other conservative treatment, should be continued until the patient has learned to walk, and walk properly, because there is always a likelihood of relapse.

As for Dr. Pruce's paper, I agree that there is no substitute for active motion of the hand. So many hands and fingers lose mobility because of too long a period of immobilization and improper supervision by the physiotherapist. Arm casts should be so applied as to permit as much finger motion as possible. Stiff fingers must not be passively stretched, because, as Dr. Pruce has brought out, much damage can be done by this procedure. Patients should have supervised activity but not forced passive exercise. Heat and the paraffin glove are the best methods of improving the circulation. Immobilized joints become avascular, and, as a result of this, they become stiff. Therefore, maintenance of muscle tone and circulation should always be considered of paramount importance.

DR. F. G. HODGSON (Atlanta): I just want to confirm what Dr. Kite has said about seeing so many more of these metatarsus varus cases. They are very much more frequent than they used to be, and in the early cases they are very simple to straighten out.

I have used one device which he didn't mention. Apply a thin layer of cotton batting and put on a plaster shoe. Before the shoe settles, hold the heel in proper position and push the foot in valgus and let it set, and that little plaster shoe will hold the foot in the proper shape. Just like a plant, you can train it to grow the way you want it to grow. Change the little cast about every two weeks, and after two or three months you can put on a shoe and most of them will stay corrected. It is very simple and parents are very much pleased with that type of treatment.

Also I would like to congratulate Dr. Pruce on his paper. I enjoyed it very much.

HEALTHGRAMS

Fear plays a considerable part in the delay that many patients allow before consulting a physician. Certainly it is the next important factor after ignorance in causing delay. C. D. Haagenesen, M.D., Bull. New York Acad. Med., Oct., 1948.

* * *

The postponement of the first infection from childhood to adult life, which we are witnessing at present, may have a corresponding effect on the age at which the initial manifestation of chronic pulmonary tuberculosis is likely to develop. At any rate, from a practical standpoint, it seems inadvisable to regard the risk of developing the disease as limited to any particular age in adult life. David Reisner, M.D., The Am. Rev. Tuberc., March, 1948.

CANCER COMMISSION, MEDICAL ASSOCIATION OF GEORGIA

CANCER NEWS

Ordinarily speaking, a prediction about anything that might or might not happen at any given time is a dangerous thing to make, but many people now think that cancer as a disease is on the way out! It is now possible to state that, in the next ten years or less time, effective plans will make cancer deaths (2,608 in 1947) almost as scarce in this State as those caused by malaria (13 in 1947)! Some persons reading this statement will certainly perk up their ears about the matter and I can hear the anvil chorus coming my way.

We now wish to announce that the Cancer Commission of the Medical Association of Georgia and the Department of Cancer Control of the State Health Department, working hand-in-hand with the Georgia Division of the American Cancer Society, have devised plans for the most concerted attack on cancer that has ever been made in Georgia. Coordinated efforts will entail the help of every medical society and every doctor in the State. Emphasis will be placed on radio and newspaper propaganda, talks by doctors before lay and other groups, movies, etc., with emphasis placed upon each individual doctor, urging him to make special efforts to detect cancer in his office patients. The special centers for cancer control and detection, of course, will continue their work as usual. There are 17 such units in Georgia now.

We can be inspired by the results in the state of Vermont. Here's what has been accomplished: In ten years, with such a program

in action as we anticipate in Georgia, cancer cases hospitalized in that state almost tripled in number; furthermore, a recent report showed that 60 per cent of the patients admitted to hospitals in 1947 had localized malignancies. Ten years ago this figure was about 20 per cent. It is also interesting to know that in 58 per cent of cases admitted, the cancer had not spread to other areas of the body, and of this latter group the doctors felt that they could cure the patients! As a rule, 801 cancer patients in Vermont hospitals represented one out of every 37 admissions. Not all were charity patients, but more than one-fifth of them were unable to pay for treatment.

The record further shows that, since 1935, the number of cancer deaths in the United States as a whole had increased nearly 50 per cent, but in Vermont the increase is barely perceptible.

It would behoove us, therefore, to remember the great strides in cancer cure and prevention made by our northern sister-state. Surely with determined effort and action by all groups interested as never before, we can look to the future with great enthusiasm and encouragement toward bettering our results in Georgia.

The cancer incidence in Georgia has gradually risen. Now we feel the rate must fall. It shall be reduced. More cures shall be made; more lives shall be prolonged!

JACK C. NORRIS, Chairman
Cancer Commission,
Medical Association of Georgia.

PRESIDENT'S PAGE

NEW NATIONAL HEALTH BILL

The new national health bill, S. 5, is now in committee. The details of how this proposed law will be administered and the method of financing it indicates that American Medicine is facing a crisis today. The whole plan, with its board, advisory council, and army of workers, sets up a political and economic empire throughout the nation with the Federal Security Administrator as commander-in-chief. With the proposed expenditure of four billion dollars or more a year, it is possible that a mighty bureaucracy would be established issuing edicts and regulations that would affect every individual in the more than 150,000 political subdivisions in the United States.

It is often stated that the health record of the United States is superior to that in any major nation in the world. A condition which existed prior to World War II. Why then do we hear so much about the need for government-controlled medicine? Why are the proponents of state medicine laymen with scant knowledge of health, sanitation, hygiene and the practice of medicine? Why have large numbers of social workers advocated some scheme of state medicine? Why are many great industrialists opposed to the socialization of medicine? Why are some of the leading editors and educators of the nation condemning federal control of medicine? A careful examination of this bill should reveal all the answers. It is interesting to note that the individuals and organizations clamoring for this legislation are perhaps blind to the fact that the great financial burden incident to the establishment and functioning of this project will be borne by every salaried individual, since the federal taxation makes no provision for medical care for those who cannot pay, and additional local tax must be levied to care for the indigent.

To the German people Bismarck's scheme brought financial embarrassment and inferior medical care. Its counterpart was a miserable failure in France. Britain imported the scheme from the continent and instituted a program of socialized medicine in July 1943. The estimated cost for the first year already has been found about 50 per cent inadequate. The antici-

pated deficit of Britain's plan must be met. Other sources of revenue will be tapped. Salaries of physicians and dentists may be reduced. More rigid regulations interfering with medical practice probably will be enforced. Meanwhile the quality of medical care under government control is rapidly deteriorating. As the organization gets into full swing its tremendous possibilities toward political maneuvering are readily foreseen.

Instead of devising schemes similar to those that originated in continental Europe our lawmakers should consider the advice and counsel of the leaders in medicine, in education and in business. They should remember our Pilgrim fathers and their unfaltering Christian faith and spirit of independence that led to the development of this great and powerful nation. Edgar M. Queeny in his book, "The Spirit of Enterprise", tells of Count de Tocqueville, a young French aristocrat, who came to this country early in the nineteenth century to study the means by which "liberty was regulated and reconciled with the social order". He watched to ascertain what made America "tick". He discovered "individualism". These individualists in 150 years conquered a continent and created a society of unparalleled material and spiritual wealth; a society whose Christian spirit was expressed in a respect and tolerance for the beliefs and ambitions of others. A society that built fortunes, developed philanthropists who gave us libraries, museums and universities. Does anyone have an imagination fantastic enough to believe that this "individualism" could have developed under a socialistic form of government?

The very suggestion of state medicine smacks of communism and is contrary to our heritage and hope for the future. It is a *sphere* to socialize civilization's most independent and responsible profession. It is a staggering blow to ambitious students anxious to pursue the time-honored healing art. It is foreign to our thought and way of life. It is an entering wedge for a more elaborate and complete plan of socialism with centralization of power. All who love and appreciate the American way of life should join in this struggle to preserve private enterprise, freedom and liberty.

EDGAR H. GREENE, M.D.

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**FUNDS MEAGER FOR RESEARCH
ON HEART CONDITIONS**

Although the American people contribute millions of dollars for the control of cancer and many other easily dramatized diseases, funds are pitifully meager for research on the nation's number one killer, conditions affecting the heart, points out Morris Fishbein, M.D., Chicago, editor of *Hygeia*, health magazine of the American Medical Association.

In an editorial appearing in the current (February) issue of the magazine, Dr. Fishbein emphasizes that what has been achieved in controlling heart disease is merely proof of how much could be accomplished if the personnel, facilities, and funds so sorely needed could be made available.

The editorial follows in part:

Today in the United States heart disease is the new captain of the men of death; fifty years ago it was tuberculosis. Once the acute and chronic infectious diseases were far greater as a menace to mankind than diseases of the heart, high blood pressure and hardening of the arteries.

Today tuberculosis is seventh among the causes of death. High blood pressure and hardening of the arteries are responsible for 45 per cent of all cases of heart disease in adults.

The prolongation of life by the technics of modern medicine has resulted from the manner in which the diseases of childhood have been brought under control. People today live far longer than they did in 1900.

Rheumatic heart disease is the leading fatal disease among children between the ages of 5 and 19. Many of those who died of heart disease as they grow older represent children who have had rheumatic heart disease and who then suffered, more or less, disability for their remaining years.

Thus heart disease takes its toll in sickness and disability as well as in death. Thousands of men in the prime of life whose economic value to society is tremendous are stricken when they are beginning to make their richest contribution.

From the facts here recited, the outlook may seem dismal. Perhaps the apathy of most people toward heart disease and the acceptance of the inevitability of deaths from diseases of the heart are largely responsible for our failure to meet the challenge.

The American people contribute millions of dollars to the control of tuberculosis, cancer,

infantile paralysis, and many other easily dramatized diseases. The funds for research on conditions affecting the heart are pitifully meager.

Already scientific medicine has done much in its advances against heart disease. The development of surgery of the heart in recent years has been among the most striking of medicine's great accomplishments, yet far more remains to be done than has already been accomplished.

What has been achieved is merely the proof of how much could be accomplished if the men and the facilities and the funds so sorely needed could be made available.

Every year during the past decade we have increased our knowledge of the coronary arteries. The development of the radioactive isotopes and of technics for catheterizing the heart and research with the electrocardiogram have permitted studies to be made that go far beyond anything that could be imagined twenty years ago. Yet for these studies the funds available are pitifully small.

Already the scientists who devote themselves wholly to the basic medical sciences, anatomy, physiology, bacteriology, pathology, biochemistry, and pharmacology among others, are ready and capable of extending their fundamental research into unsolved problems of diseases of the heart.

Many of these scientists are the teachers in our medical schools. If we look forward as we should to the future, they must be given opportunity to train young men in the knowledge of their sciences so as to make them available for research in the future.

Today the attack on disease requires teamwork. The medical personnel includes physicians, technicians, statisticians, nurses and social and clerical workers. The facilities include clinics, hospital wards, research laboratories, administrative offices, sanitaria, and rest camps. Both personnel and facilities are inadequate to meet the need.

A comprehensive program of research on problems of diseases of the heart means more facilities for the care and study of patients, more laboratories for research, more trained personnel. The need is established. America can and should meet that need.

**AVERAGE AGE OF PHYSICIANS
AT DEATH RISES STEADILY**

The average age of physicians in the United States at death has risen steadily during the past four years, according to American Medical Association statistics.

In 1948 the average age of physicians at death was 67.4 years, says an editorial in the current January 22 issue of *The Journal of the American Medical Association*. In 1947 it was 66.7 years; in 1946, 66.1 years; and in 1945, 65.3 years.

Heart disease is the number one killer among physicians. The Journal figures for 1948 show.

Coronary thrombosis, angina pectoris, rheumatic heart, and other heart conditions accounted for 41 per cent of the 3,230 deaths of physicians reported by The Journal during the year.

Diseases of the nervous system were second, causing 412 deaths, cancer and other malignant tumors third, accounting for 348 deaths, and accidents fourth, accounting for 173 deaths.

Falls caused more deaths than did any other other type of accident, and motor vehicle accidents caused more than twice as many deaths as did air transport accidents.

Other major causes of death among physicians were diseases of the respiratory system, accounting for 163 deaths, and diseases of the digestive system, accounting for 114.

Twenty-three physicians of the 3,230 total were killed in action during World War II, and 33 died while in military service.

USE NEW DRUG AGAINST TROPICAL PARASITES

A new synthetic drug, tetrazan, destroys parasites which cause the disfiguring tropical disease elephantiasis.

Writing in the January 29 issue of *The Journal of the American Medical Association*, three researchers who conducted the first trial of the drug on human beings indicate that it shows promise of eradicating the parasitic infection before symptoms of the disease develop.

The researchers are Jose Oliver-Gonzalez, Ph.D., Dwight Santiago-Stevenson, M.D., and Jose F. Malonado, Ph.D., of the Departments of Medical Zoology and Clinical Medicine of the School of Tropical Medicine, San Juan, Puerto Rico.

The mosquito-carried parasite of elephantiasis is found in the blood stream of humans as an embryo. Huge enlargement of parts of the body is caused by the parasite in the adult form of a worm.

The researchers report on 23 patients treated with the new drug. In all cases the embryos rapidly disappeared from the blood stream, and in four cases there was clinical evidence of death of the adult worm. Only one patient showed symptoms of developing elephantiasis, and these disappeared during treatment.

Thirteen patients apparently were free of the parasites 15 months after receiving tetrazan. Others in the group probably did not receive a sufficient amount of the drug to eradicate the infection, the researchers believe.

Little or no toxic effects followed administration of tetrazan.

AUREOMYCIN EFFECTIVE FOR NONBACTERIAL PNEUMONIA

Aureomycin, the new golden-colored antibiotic drug, is effective against pneumonia of a type which resists penicillin and sulfa drug therapy.

The cause of this disease, primary atypical nonbacterial pneumonia, is not known. Only

during World War II was it differentiated from similar lung infections caused by specific viruses and rickettsiae.

Writing in the January 29 issue of *The Journal of the American Medical Association*, Emanuel B. Schoenbach, M.D., and Morton S. Bryer, M.D., from the Department of Preventive Medicine, Johns Hopkins University School of Medicine, Baltimore, report that they gave aureomycin by mouth to 13 patients with this type of pneumonia. Twelve of these patients were severely ill.

Two of the group were clear of fever in 12 hours, and in no case did the fever last more than 72 hours after the drug was given. All 13 patients recovered from the disease.

BLOOD SUPPLIES LACKING FOR ATOMIC WARFARE

More and larger blood banks are vital if the American people are to be prepared for atomic attack, according to John L. Bach, Chicago, press director of the American Medical Association.

Writing in the February issue of *Hygeia*, health magazine of the American Medical Association, Mr. Bach says that blood supplies needed in the event of an atomic war would far exceed even the huge amount collected for World War II.

No metropolitan area of the nation could furnish more than a fraction of the whole blood it would need if struck by one atomic bomb, he indicates.

Mr. Bach in his article quotes Dr. Leo F. Simpson, Rochester, N. Y., president of the Medical Society of the State of New York, as saying:

"The explosion of a single atomic bomb in a metropolis of a million or more people may cause 300,000 casualties, and a large number of these—possibly 100,000—will suffer from shock, hemorrhage, and the effects of radioactivity."

"These will be in need of immediate blood transfusions. It also is accepted that the present facilities for collecting, storing, and transporting blood are insufficient to meet the demands of an emergency of such proportions."

"None of the metropolitan areas could, by themselves, supply more than a fraction of the need for whole blood for their own use should they be ravaged by an atomic bomb, even supposing that their existing supply miraculously escaped destruction."

It is imperative that some way be found to collect, store, and distribute the vast quantities of fresh whole blood that would be required to treat casualties of atomic attack, the article says.

In the event of war, medical, health and sanitary problems will be greater than ever before because they will involve whole civilian populations as well as armed forces, Mr. Bach points out. Immediate planning for a new

medical, disaster and relief setup is needed, he emphasizes.

Describing the medical situation at Hiroshima and Nagasaki after those cities were struck by the atomic bomb, Mr. Bach says:

"Sufficient information was obtained to estimate the following types of injury; wounds, 70 per cent; burns, 65 to 85 per cent; and radiation injury more than 30 per cent. Few persons with extensive third degree burns lived long enough to receive medical attention with the result that about 90 per cent of the burned patients in the aid stations and hospitals exhibited second degree burns. Less than 5 per cent of the burns were caused by fires in damaged buildings and among the debris.

"The majority of persons suffering from radiation injury experienced nausea and vomiting several hours after the bombing. In those who received the largest doses of gamma rays, fever and diarrhea were present a day after the bombing.

"Purpura, a disease characterized by the formation of purple patches on the skin, appeared four to seven days later. After that time, the patient failed rapidly and died suddenly. In one group of autopsies, injury to the brain was found in 60 per cent of the patients.

"Between seven and 28 days after the explosions, the majority of those affected by gamma radiation developed gastrointestinal symptoms, purpura, fever, leukopenia, and anemia. Epilation, or hair removal, involving chiefly the scalp, was common among the casualties. The bone marrow, which manufactures blood, was damaged badly as well as the lymphatic organs and the tissues of both male and female reproductive systems.

"To medical scientists this catastrophic picture points to atomic unpreparedness in this country."

Although blood is the most valuable agent available to doctors for treating injuries from an atomic explosion and the resulting radiation, at the present time there appears to be no other way to collect the enormous supplies that would be needed except to enlist the cooperation of all the voluntary agencies best able to undertake the task. Mr. Bach says.

NEW DRUG BOON TO INSOMNIA SUFFERERS

Butabarbital sodium, a new drug closely related to the familiar phenobarbital, should be a boon to insomnia sufferers and persons with a variety of functional and organic diseases, according to a Philadelphia doctor.

Both butabarbital sodium and phenobarbital belong to the group of drugs known as barbiturates, which are derived from barbituric acid and act upon the brain.

Writing in the January 15 issue of *The Journal of American Medical Association*, Robert D. Dripps, M.D., from the Division of Anesthesi-

ology, Hospital of the University of Pennsylvania and the Harrison Department of Surgical Research, University of Pennsylvania School of Medicine, reports the first extensive clinical trial of the drug, on 630 patients.

Butabarbital sodium is extremely useful in treating insomnia patients who fall asleep without drugs but awaken in the early morning and toss about restlessly for the remainder of the night, Dr. Dripps says. This type of insomnia is common in aged persons.

The drug appears to be valuable as a substitute for phenobarbital in patients with kidney damage and was found to relieve tension and diminish anxiety and nervousness in patients with various conditions, including high blood pressure, epilepsy, hyperthyroidism, anxiety states, congestive heart failure, bronchial asthma, peptic ulcer, and acute rheumatic fever.

No acute toxicity or significant respiratory depression was noted. However, Dr. Dripps indicates, its slower onset and relative mildness make butabarbital sodium less efficient for some uses than are other barbiturates.

HOSPITAL EMPLOYEES

Salaries of hospital employees increased 10 per cent and hours of work per week decreased in 1948 over 1947, according to the fourth annual nation-wide study of hospital salaries made by the American Hospital Association. The survey was conducted among 4623 hospitals of all types except Federal institutions.

The average starting salary of general duty nurses is \$204 per month, an increase of \$49 over the 1945 total and \$17 per month over the 1947 average. Untrained women employees receive an average of \$119; untrained men, \$136. Clerks receive an average of \$140, and practical nurses' average monthly pay is \$145, as compared with \$132 for 1947.

The hospital work week has decreased one hour from 1947 to 1948 for all categories of personnel except clerks, for whom the 44 hour week still prevails. The 1948 average for all personnel is 45.4 hours per week. General duty nurses work an average of 45 hours, while untrained men and women and practical nurses have an average 46-hour week.

The highest average number of days of paid vacation, 16 per year, was received in 1948 by general duty nurses. Clerks and practical nurses had an average 14 days of paid vacation. Thirteen days was the average paid vacation for untrained men and women.

Fewer hospitals furnished complete maintenance for employees in 1948 than in previous years. Where maintenance represents a portion of the gross salaries reported, however, value of room and board is computed in relation to the Cost of Living Index of the United States Department of Labor, Bureau of Labor Statistics, on a computed scale for all sections of the country.

"Salaries and employee maintenance service, because they constitute over one-half of total hospital expenditures, are of major concern to hospital administrators and to patients who pay for hospital care," said George Bugbee, executive director of the American Hospital Association.

"This survey indicates that American Hospitals have markedly bettered their personnel programs in the past year, with regard to salaries, hours of work, paid vacations and related problems of effective personnel administration," Mr. Bugbee stated. "The result is constant improvement in hospital care offered to the American people."

GEORGIA DEPARTMENT OF PUBLIC HEALTH

PAST, PRESENT AND FUTURE

The present-day concept of community responsibility and concern for communal health cannot be credited to our civilization for its inception. The camp sanitation rules which governed the Israelites during their nomadic wanderings between Egypt and Palestine places the origin of this concept in antiquity. With the passage of time, especially during the past century, scientific advance and discovery have greatly broadened its inclusiveness.

During the first 125 years of this nation's history the concept of communal health was limited to control or improvement of the physical environment and enforcement of quarantine. Sanitary disposal of sewage, the protection and purification of water supplies, the control of nuisances and the improvement of housing comprised the first effective attack on environmental hygiene. This era of sanitation accomplished much in the reduction of communicable diseases transmitted largely through drinking water polluted by human wastes.

However, these first efforts were based upon legal rather than scientific authority. It was not until 1843, and later in 1865, that careful surveys disclosed the true extent of preventable disease, and the fact that death rates were higher than birth rates in the cities. The disclosure of these facts brought about a demand by the public for consistent scientific service under the direction of a qualified health department.

At the turn of the century the second era of public health began. It was initiated by a movement for public education in health. This movement has been of tremendous importance not only in effecting widespread dissemination of popular information about preventable disease, but also in bringing knowledge, financial assistance and public opinion to the support of the official health agency through the influence of unofficial and volunteer health agencies.

The tuberculosis committees, societies and associations at the local, state and national levels set the stage for the opening of this era of public information. Their approach to the public was based upon the communicability, the curability and the preventability of the disease. Once accepted, it was inevitable that the knowledge of these facts should lead to appropriate communal action. There resulted a vast increase in physical facilities for the care and prevention of tuberculosis. Divisions of tuberculosis control were established in all important state and local health departments.

Following the leadership and example of the tuberculosis association, there developed similar volunteer and unofficial health agencies in the fields of infant and child hygiene, maternal hygiene, social hygiene and others. With increasing tempo the country has been swept by

wave after wave of specialist health propaganda to stimulate appropriate public and official action. With no intention of minimizing in the least the tremendous educational and financial contributions these organizations have made and are making, the question is raised as to the wisdom of continuing this pattern of activity without an inventory of comparative needs and an equitable coordination in the development and utilization of resources.

The third era of public health had its inception in the experience of World War I out of which came the conviction that only by the systematic employment of the periodic health examination could all the potential benefits of preventive medicine be secured for the individual. In addition, it was perceived that while public health had been eminently successful in many fields of endeavor, it had failed particularly to reduce infant and maternal mortality and the complications concomitant to child-bearing.

Being convinced of the need for securing periodic health examinations and the desirability of salvaging infant and maternal life, the American Medical Association and the official and unofficial health agencies by common action through the National Health Council in 1922, reached an agreement which has been followed with much success. As there implied, the objective of this public health era is to secure for all classes hygienic guidance in a healthy way of life extending from the prenatal period to old age, in addition to medical services for the care of the sick.

This expanded concept extended public health work to include the direction of midwives, the supervision of expectant mothers, guidance in infant and preschool care, protection of health among school children and young people and the conservation of adult health through the productive years until old age. The effectiveness of the hygienic advice given has been greatly enhanced by the increased knowledge of nutrition.

Informing the public through official and voluntary health agencies of the benefits to be derived from periodic medical examinations, the training of physicians, nurses and technicians, and the providing of facilities for expediting the required technical service, have been linked effectively with the extension of public health work. While much has been accomplished in this direction, it must be admitted that the task is still far from being complete.

The rising tide of public health throughout the nation may be attributed to the growth of humanistic attitudes, the progress of representative government and the tremendous advances of medical science.

By way of Lister, surgery has emerged from

the dark days of "laudable pus" with its limited range of imperative surgical intervention to vast fields of spectacular accomplishments. Much of what was intervention has been replaced by prevention. Advances in anesthesia and the addition of chemotherapy and antibiotics to the physician's armamentarium have brought within the range of possibility much which was heretofore unattainable.

Improved health and an increasing life span bear testimony to the advances medicine has made in all its branches.

With increase of knowledge has come a correspondingly great increase in specialism which is being demanded more and more by all classes. It is no longer possible for a single medical practitioner, no matter how well-trained he may be nor how diligently he strives, to keep pace with the growth of knowledge in all aspects of his profession. Nor is it possible for him to attain the specialized skill necessary to utilize such knowledge. As a result, there is a growing list of specialties extending in length from pediatrics to geriatrics, in breadth from private practice to public health. Thus medical science has become increasingly accurate and complex giving rise to many of the modern problems of total medical care.

With these developments comes the necessity of proper understanding and full cooperation between all branches of medicine. What may be considered a definite step in this direction is the formation recently of the General Practitioners' Section which will no doubt lead to a closer working relationship between the specialist and the general man.

In considering the tremendous advancement that medicine has made, it must be realized that the degree to which beneficent action has been attained cannot be explained by scientific progress alone. Associated with scientific advance has been the development of "a large sympathy of man with man" (Simon). This has motivated the utilization of democratic processes to minimize delay in the acquirement and application of knowledge.

During the past and present centuries there has been a rapid development of the attitude against suffering. It is now universally accepted that "No sick human being must be allowed to lack all that is practicable and really necessary for his skillful and humane treatment and for his expeditious return to health, or failing this for his comfort while ill" (Newsholme). Of equal importance has been the growing trend to obviate where possible imperative intervention by the application of preventive procedure.

Notwithstanding the enormous increase in scientific information, its enlarging expression through personal and communal medicine given impetus by the rapid growth of humane attitudes, much of total medical work is belated. This bottleneck of delay in securing practical application of the total know-how for all classes is a major problem we are fraught with today.

True democracy, if maintained, can be depended upon to supply the modus operandi for its solution.

The foregoing attempt has been to describe or adumbrate briefly the development of communal and personal medicine in the United States, to envisage growth of community responsibility for health and to allude to certain intrinsic factors involved in these processes. In so doing it becomes evident that the early concept of public health has undergone considerable widening of its scope. A definition which expresses admirably the social and scientific conception of public health in America today is that of Winslow, "Public Health is the science and art of preventing disease and promoting physical health and efficiency through organized community efforts for the sanitation of the environment, the control of community infections, the education of the individual in principles of personal hygiene, the organization of medical and nursing services for the early diagnosis and preventive treatment of disease, and the development of social machinery which will ensure to every individual a standard of living adequate for the maintenance of health."

In the future the tributaries of research, discovery and experience will continue to widen the swelling stream of knowledge, emphasizing the growing importance of securing adequate distribution channels to every home in America. The development and maintenance of these vital arteries might well be the objective of the ensuing public health era.

Agreeing with Osler, that "Nothing in life is more glaring than the contrast between possibilities and actualities, between the ideal and the real", American medicine will continue to advance.

O. F. WHITMAN, M.D.
Medical Director,
Southwestern Health Region,
Georgia Dept. of Public Health,
Albany.

STUDY DYE FOR USE AGAINST BLEEDING IN THROMBOOPENIA

Toluidine blue, a dye used to combat bleeding from overexposure to radiation, is valuable in treating selected cases of the blood condition thrombopenia, say three doctors from the Shreveport, La., Charity Hospital.

In thrombopenia there is a decrease in platelets, colorless cells in the blood that help in forming blood clots, and bleeding from tiny blood vessels may result.

Writing in the January 22 issue of *The Journal of the American Medical Association*, J. E. Holoubek, M.D., a fellow of the American College of Physicians, J. V. Hendrick, M.D., and W. J. Hollis, M.D., describe a trial of the dye on three patients suffering from bleeding associated with thrombopenia.

One of the patients, apparently dying despite repeated blood transfusions, recovered dramatically and was discharged from the hospital as cured.

Even though the dye did not save the lives of the two other patients, it stopped bleeding in one, the doctors say. Its complete failure in one case may be explained by the absence of anticoagulant substances in the patient's blood, they suggest. Research indicates that toluidine blue makes at least one such substance inactive.

WOMAN'S AUXILIARY TO THE MEDICAL ASSOCIATION OF GEORGIA

THE TIES THAT BIND

The idea of honoring our Men of Medicine on March 30, the date on which Crawford W. Long performed the first operation using ether as an anesthetic, originated in Georgia. Every year Doctors' Day is celebrated by the Woman's Auxiliary throughout the realm of the Southern Medical Association.

From the good fellowship evidenced each March 30 by the many groups expressing gratitude to their physicians, we know that the efforts of the Doctors' Day Committee are far-reaching. It takes but a few moments from the busy day to say, "Doctor, we accept your service, we acclaim your skill, we acknowledge your sacrifice, and we accord you a word and gesture of our appreciation." The experience of these few moments can be a benediction to all those who participate. To the physician, after pausing to hear these sincere words of commendation, shall come a feeling of renewed hope, needed energy and a reconsecration of purpose. To the thoughtful celebrant shall come that flush of well-being that accompanies the performance of a good and timely deed.

The Committee on the Research and Romance of Medicine was inaugurated by the Auxiliary to the Southern Medical Association for the purpose of gathering and preserving clippings, biographies, papers on health education, Auxiliary information and bits of traditional history of the medical profession. These interesting papers are for the use of County Medical Auxiliaries in preparing their programs, and are available for research to doctors, and Auxiliary members. Since its installation a very gratifying fulfillment of this purpose has been realized. A booklet was published in 1940, recording the contributions to the files of this committee. Copies of the booklet have been exhausted but there is a committee working on a revised edition, which will record not only the contents of the first booklet but also all contributions made through June 1949. Georgia has been rich in medical history and it is the purpose of the Committee on the Research and Romance

of Medicine to have as much of this history as can be gathered recorded and printed in the new edition. Our sister states of Virginia, South Carolina, Texas, Oklahoma, Kentucky and others have contributed generously to the records. Many papers have come from Georgia but not nearly enough to make an accurate record of pioneer, rural and urban medicine. It is hoped that every one will search attics, scrapbooks and old newspapers for information concerning doctors and the practice of medicine in years passed. Articles should be cut from local newspapers, and copies of recently written biographies and other interesting papers on current health topics should be collected. Interest should be stimulated in papers to be written on subjects that may be entered in the files of the Committee on Research and Romance of Medicine in Georgia. Every Auxiliary, no matter how small or large, can make a valuable contribution to the medical history of our great commonwealth.

While the contributions to files of the Research and Romance of Medicine Committee show the great love we, as Georgians, have for recording the achievements of the past, they also list our section's interest and activity in improving the general health and welfare of the citizens of today and of the future.

The annual celebration of Doctors' Day and the findings of the Committee on Research and Romance of Medicine also bind together the physicians' wives of our State and other states of the Southland in a union of friendship not readily appreciated by the residents of other sections of our country. Strengthen these ties that bind us to our Southern Auxiliary by a conscientious observance of Doctors' Day and a constant pursuit for medical information to be entered in the files of the Committee on the Research and Romance of Medicine.

Let those who follow us read the records of our Men of Georgia Medicine, and having read, hallow their names.

MRS. EDGAR H. GREENE, Chairman,
Research and Romance of Medicine,
Woman's Auxiliary,
Medical Association of Georgia.

COMMUNICATION

Dr. E. D. Shanks
478 Peachtree Street, N. E.
Atlanta, Georgia
Dear Dr. Shanks:

I would appreciate it very much if you would insert in the coming issue of The Journal a notice inviting the physicians of Georgia to send patients with granuloma inguinale and lymphogranuloma venereum to the University Hospital in Augusta for treatment. The Georgia State Department of Health has made available a ward for the treatment of indigent patients with these diseases. Transportation and hospitalization will be provided free of charge. Aureomycin and streptomycin are being used most successfully in the management of both of the diseases. Physicians interested in sending patients to Augusta need only communicate with me at the School of Medicine.

Your courtesy in giving this notice prominent space in The Journal would be very much appreciated.

With kind regards, I remain

Sincerely,
ROBERT B. GREENBLATT, M.D.

NEWS ITEMS

Dr. W. E. Baldwin, a native of Due West, S. C., was recently appointed Tri-County health officer for Habersham, Rabun and Stephens counties, with headquarters in Toccoa. Dr. Baldwin graduated from the Medical College of the State of South Carolina, Charleston. He started his public health career in August 1937, as county health officer for the South Carolina State Board of Health. Later he was assigned to Oconee County, where he served until his entrance in the Army in 1942. After the war Dr. Baldwin returned to work with the South Carolina Board of Health, and was granted a leave of absence for one year to study public health at the Michigan School of Public Health, from which he received a master's degree in Public Health in 1948.

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Dr. Louis Berger, Atlanta, announces the opening of his office at 53 Sixth St., N. E., Atlanta. Practice limited to the eye.

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The Bibb County Medical Society held its regular meeting at 801 Hemlock Street, Macon, January 4. Program—Discussion of proposed amendment to Constitution and By-Laws (see schedule). A. M. Phillips, M.D., secretary.

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Drs. Allen H. Bunce, Mark S. Dougherty and Robert Carter Davis, Atlanta, announce the removal of their offices to 98 Currier Street, N. E., Atlanta. Internal medicine.

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Dr. Henry R. Butler, Jr., former Atlanta physician, was recently elected to the staff of the Methodist Hospital of Southern California, one of the large leading hospitals of Los Angeles. Dr. Butler, who is now practicing in his specialty of internal medicine and heart diseases, settled in California after the war in which he served and in which he reached the rank of Lt. Colonel. He is a member of the Los Angeles County Medical Association.

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Dr. Enoch Callaway, LaGrange, chairman of the Georgia division of the American Cancer Society's State executive committee, recently announced the appointment of Lon Sullivan, Atlanta, as executive vice-president of the society.

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The Clayton-Fayette Medical Society held a call meeting at the home of Dr. Y. R. Coleman, Jonesboro, January 20. The purpose of the meeting was to pay the \$25 A.M.A. assessment. "This assessment is being paid by all members of Clayton-Fayette Medical Society

for the reason that we heartily oppose any form of socialized medicine. A copy of this paragraph to be sent to the Secretary of the Medical Association of Georgia." Congratulations to this society for having paid 100 per cent to the above named fund!

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The Cobb County Medical Society held its monthly meeting at the Marietta Hospital, Marietta, December 7. Dr. Alfred Colquitt, Jr., Marietta, was elected president. He succeeds Dr. Walter G. Crawley. Other officers are Dr. Wm. H. Benson, vice-president, and Dr. E. A. Musarra, secretary-treasurer. Dr. Walter G. Crawley was elected delegate to attend the centennial session of the Medical Association of Georgia to be held at Hotel DeSoto, Savannah, May 10-13, and Dr. Martin Van Teem was named as alternate delegate.

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Drs. James B. Craig and Joseph Pacifici, Savannah physicians, will operate a new medical center for the care and treatment of persons suffering with nervous disorders and physical exhaustion. This is an important development in the medical circles of Savannah and is an added welcome progressive step along with the recent establishment of the psychiatric ward at St. Joseph's Hospital, Savannah. Drs. Craig and Pacifici are on the staff of St. Joseph's Hospital. The new medical center will be known as "Colonial Manor," and is situated in a 15-acre tract which will provide an admirable site for the type of medical treatment and convalescence for patients which the two doctors expect to provide. The manor will be adequately staffed and supervised by registered nurses who will be on duty at all times.

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The DeKalb County Medical Society recently elected officers for 1949. They are: Dr. Lawrence P. Matthews, president; Dr. John E. Beck, vice-president; Dr. F. C. Powell, secretary-treasurer; Dr. John T. Leslie, delegate to the annual session of the Medical Association of Georgia, and Dr. Homer H. Allen, alternate delegate.

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Dr. George L. Epps, Bainbridge physician, has been accepted as a member of the staff at the University of Virginia Department of Medicine, Charlottesville, Va. Dr. Epps will work in the x-ray department for the next three years, under Dr. Vincent Archer, outstanding radiologist.

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Dr. M. Fernan-Nunez, a native of Savannah, and for the past several years pathologist at Milledgeville State Hospital, Milledgeville, has resigned and accepted a position as head of the Pathology Department of the Veterans Administration Hospital, Dublin. Dr. Nunez was assistant in pathology at Vanderbilt University School of Medicine, Nashville; professor of pathology and bacteriology at Marquette University School of Medicine, Milwaukee, and during his assignment at Marquette he lectured in numerous Army and Navy hospitals throughout the United States as an instructor of the War-Time Graduate Medical meetings. He is a fellow of the American Medical Association, American College of Physicians, and American Society of Clinical Pathologists, a member of the Georgia Society of Pathology, the Medical Association of Georgia, and a diplomate of the National Board of Medical Examiners.

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Dr. M. A. Fort, Bainbridge, at 76 years of age, is Georgia's oldest public health officer. He has directed the Decatur County department of health for 24 years. Public health officers make only a physicians' pittance of a salary, but public health nurses and clerks make even less. Dr. Fort decided to do something about it. He set aside \$600 of his own private annual income to add \$10 a month to the salary of each of his employees. In addition, Decatur County authorities agreed to supplement salaries \$10 a month, making a

\$20 raise for each employee. The raises are expected to keep the employees from leaving for better-paying jobs.

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The Fulton County Medical Society held its regular dinner meeting at the Academy of Medicine, Atlanta, January 20. Scientific program: "Symposium—Respiratory Diseases," "Sinusitis," Dr. James T. King; "Atypical Primary Pneumonia," Dr. F. Levering Neely; "Bacterial Pneumonias," Dr. C. Purcell Roberts; and "Common Colds and Influenza," Dr. William F. Friedewald.

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The Georgia Medical Society held its regular meeting at the Candler Nurses' Auditorium, Savannah, January 11. Program: "Diagnosis and Treatment of Syphilis," Dr. Albert Heyman, Atlanta, professor of syphilology, Emory University School of Medicine; "Interpretation of the Kahn Test," Mr. E. L. Webb, Atlanta, Georgia Department of Public Health. New officers are: Dr. John L. Elliott, president; Dr. H. M. Kandel, president-elect; Dr. R. O. Bowden, vice-president, and Dr. Samuel Youngblood, Jr., secretary-treasurer.

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Dr. I. S. Giddens, Adel, announces the removal of his office to Lakeland for the practice of medicine.

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Dr. Benjamin P. Gilbert, a native Georgian, announces the opening of his office at 100 Grove Street, Gainesville. Practice limited to diseases of infants and children. Dr. Gilbert is a graduate of the University of Georgia School of Medicine, Augusta. Following his graduation he interned at Southern Baptist Hospital in New Orleans before entering the Navy in 1943. He served as senior medical officer on an LST hospital ship in the Pacific theater. Receiving his discharge in 1946, Dr. Gilbert took a six months' post-graduate course in pediatrics at Grady Hospital, Atlanta, and spent a year at Henrietta Egleston Hospital for Children, Atlanta. He was chief resident doctor at the Children's Medical Center, Dallas, prior to locating in Gainesville.

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The Glynn County Medical Society recently announced the endorsement of the proposed merger of the facilities of the City Hospital, Brunswick, and the Board of Health. The medical society's endorsement backed "the proposed merger of the facilities of the City Hospital and the County Board of Health under the direction of Dr. M. E. Winchester." The main object of the proposed merger is to eliminate monthly operating deficits at the hospital. An advantage to the physicians will simplify their giving of time to free clinics operated by the health department, which now requires special trips to the above-named department. New officers of the Glynn County Medical Society are: Dr. Thomas W. Collier, president; Dr. Ira G. Towson, vice-president; Dr. H. L. Moore, secretary-treasurer; Dr. J. B. Avera, delegate to the annual session of the Medical Association of Georgia; Dr. H. L. Moore, alternate delegate, and Drs. H. M. Coe, J. O. Simmons and C. A. Wilson, Jr., board of censors.

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The Grady Memorial Hospital, Atlanta, will set up a heart disease treatment and research program, the first of its kind in the nation. Dr. T. F. Sellers, Atlanta, State Health Director recently made the announcement. The United States Public Health Service will finance the demonstration unit with a grant of \$16,000, Dr. Sellers said. Fulton County Public Health director, Dr. Roy W. McGee, Atlanta, will administer the project cooperation with the Department of Cardiology of Emory University School of Medicine, headed by Dr. R. Bruce Logue, Atlanta.

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Dr. Lon W. Grove, Atlanta, recently made the presentation of a portrait of Dr. Seale Harris, painted by

Milner Benedict, son of a distinguished physician, which was hung at the University of Alabama School of Medicine, Birmingham. The portrait is a gift from Alabama physicians to the University of Alabama School of Medicine, of which Dr. Harris is professor of medicine emeritus. Dr. Grove was a student of Dr. Harris when he was head of the University of Alabama Medical School, then located in Mobile. Dr. Roy Kracke, formerly of Emory University School of Medicine, Atlanta, and now dean of the University of Alabama Medical School, Birmingham, and Dr. John Gallagher, Tuscaloosa, president of the University of Alabama, made the acceptance speeches.

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Dr. Wm. Harvey Howell, Cartersville physician, was recently elected president of the Bartow County Medical Society at its regular meeting held at the Howell-Quillian Clinic, Cartersville. He succeeds Dr. W. E. Wofford. Other officers are: Dr. Wm. B. Quillian, Jr., vice-president, and Dr. A. L. Horton, secretary-treasurer.

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Dr. Harry Hutchins, Buford physician, who through his vision of the great need for a hospital at Buford, is largely responsible for the William Hutchins Memorial Hospital which was recently opened at Buford. The hospital is named for his father, Dr. William J. Hutchins, who has given 36 years of his life ministering to the sick of Buford and Gwinnett County. "A happy thought, he is still going strong," quoted *The Buford Advertiser*.

* * *

Dr. G. Lombard Kelly, Augusta physician and dean of the University of Georgia School of Medicine, is originator of a plan for a state hospital authority, and an enlarged program of medical care and medical education in Georgia. The Board of Directors of the Augusta-Richmond Tuberculosis Association has endorsed Dr. Kelly's plan, and instructed its medical advisory committee to work out plans whereby support can be given to the new program when it comes before the Georgia Legislature. Dr. Kelly explained the program in full to the directors at the session. Present at the meeting was L. L. Young, executive secretary of the TB association in Georgia. Also, Dr. E. S. Sanderson, Augusta, who is a member of the board of directors.

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Dr. Spencer A. Kirkland, Atlanta, was recently appointed as a member of the State Board of Health by Gov. Herman Talmadge. Dr. Kirkland will represent the Fifth District. He succeeds Mr. Robert F. Maddox, Atlanta, who resigned after many years of service to the State.

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Dr. John W. Mauldin, Alma, was recently discharged from the U. S. Army. He announces his association with Dr. W. W. Sharpe, of Alma, in the practice of medicine. He will also work at the Bacon County Hospital. Dr. Mauldin graduated from the University of Georgia School of Medicine, Augusta.

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The Oliver General Hospital, Augusta, held its monthly staff meeting December 16. Dr. Webb Haymaker, Washington, D. C., senior pathologist of the Neuropathology Section of the Army Institute of Pathology was guest speaker. His subject was "The Launtry-Guillain-Barre Syndrome," which involves the central nervous system. Dr. Haymaker, who is a graduate of the Medical College of the State of South Carolina, Charleston, with a degree of master of science from McGill University Faculty of Medicine, Montreal, Canada, has done post-graduate work in Germany, Austria, France, Spain, England and Canada.

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Dr. Thomas G. Peacock, Milledgeville State Hospital, Milledgeville, became superintendent of the hospital January 6. He succeeds Dr. Sam A. Anderson who was appointed superintendent some time ago. Dr.

Peacock has been on the hospital staff for a year. He is a graduate of Harvard Medical College, Boston.

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Dr. Lester M. Petrie, Atlanta, director of the Division of Industrial Hygiene, Georgia Department of Public Health, warns that carbon monoxide is a dangerous killer. "During one year's time, sixteen cases of carbon monoxide poisoning, nine of whom died, have been reported to the health department. We can't begin to estimate the number of unreported cases. These cases could all have easily been prevented by providing well known control devices and obeying simple safety rules," stated Dr. Petrie. The Georgia Department of Public Health recently acquired one of the few carbon monoxide indicators in Georgia, remarked Dr. Petrie. This indicator will measure the amount of carbon monoxide in both the air and the blood. Dr. Petrie strongly recommends that all hospital emergency rooms and health departments acquire similar apparatus. Dr. Petrie suggests you obey these simple safety rules: 1. Be sure your heating unit is properly ventilated; 2. Do not leave automobiles running in closed garages; and 3. Do not drive in cold weather with your car windows shut.

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Dr. Robert A. Pumelly, Waycross, announces his association with the Ritch-Leaphart Hospital, Jesup, for the general practice of medicine and obstetrics. Dr. Pumelly is a graduate of the University of Kansas School of Medicine, Kansas City, Kansas. For the past year he has been resident physician at the Atlantic Coast Line Hospital, Waycross.

* * *

Dr. Edgar R. Pund, Augusta, professor of pathology at the University of Georgia School of Medicine, and recognized cancer expert, brought a message of cheer to those who fear cancer when he spoke to the members of the Optimist Club, of Augusta. "I wish to speak of the hopefulness, instead of the hopelessness of cancer," Dr. Pund said. Absolute cures are on the increase, he said, due to the fact that new methods have been worked out whereby a cancer now may be detected 12 years before it could become active. In this stage, cures can be practically 100 per cent. After a person reaches 45, he attributed the three greatest causes of death today to be "heart trouble, cancer, and automobiles." Stating emphatically that it is "possible to cure cancer," Dr. Pund advocated that persons with absolute cures wear a service button, "so that people can get away from the fear of cancer—except for a healthy fear that will send them to their doctors for regular physical checkups. "We can lick cancer that way," he added.

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Dr. C. L. Ridley, Macon, superintendent of Macon Hospital, recently said the plan to rotate resident physicians between the Macon Hospital and the University of Georgia School of Medicine, Augusta, which has been under consideration for the past three years, is still in the planning stage. Dr. Ridley said the plan will enable Macon Hospital to take advantage of the training facilities at the medical college and the exchange plan will give the college residents wider actual hospital experience. The plan has been discussed with Dr. Richard Torpin, Augusta, professor of obstetrics and gynecology of the University of Georgia School of Medicine.

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A new proctologic organization has been established by charter in New York State. This organization is known as the International Academy of Proctology. Charter membership, associate fellowship and fellowship are now open. The secretary is Alfred J. Cantor, M.D., 43-55 Kissena Blvd., Flushing, N. Y.

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Dr. C. Purcell Roberts, Atlanta, announces the removal of his office to 762 Cypress St., N. E., Atlanta. Practice limited to internal medicine and cardiology.

Dr. A. F. Saunders, Valdosta surgeon, has signed a lease agreement with Lanier County whereby he will take over management of the Louis Smith Memorial Hospital at Lakeland. Terms of the lease provide that Dr. Saunders will equip and staff the newly-constructed hospital. The lease holds for three years, and at the expiration of that period it may be renewed for an additional 22 years, provided the agreement and operation are satisfactory to both parties. Dr. Saunders has entered into an agreement with Dr. I. S. Giddens of Adel, whereby Dr. Giddens will be resident physician on the hospital staff.

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Dr. J. Elliott Scarborough, Atlanta, director of the Winship Clinic at Emory University Hospital, was recently appointed to the National Advisory Cancer Council—the government's top policy-making scientific group in cancer research. Surgeon General Leonard A. Scheele, of the U. S. Public Health Service, announced the appointment in Washington. Dr. Scarborough will serve for three years on the council. The body helps make plans and policies for the National Cancer Institute, Bethesda, Md., and reviews certain applications for aid in cancer control and research. Congratulations, Dr. Scarborough!

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Dr. Albert A. Rosenberg, Atlanta, announces the opening of his office at 53 Sixth St., N. E., Atlanta. Practice limited to pediatrics.

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The Third District Medical Society held its meeting at Fort Benning Golf Club, Fort Benning, November 18. Scientific and business session: Call to order by the president, Dr. Lee Williams, Cordele; Invocation, Post Chaplain. Address of Welcome, Colonel Robert B. Hill, Fort Benning; Response to address of welcome, Dr. J. C. Patterson, Cuthbert; Problems of Stones and Hydronephrosis, Colonel Earl C. Lowry, M. C., Augusta, Chief of Surgical Service, Oliver General Hospital; "Ectopic Pregnancy", Dr. John B. Gross, Atlanta; "The Diagnosis and Management of Rapid Heart Action", Dr. Carter Smith, Atlanta; "Case Reports", Lt. Col. Horace C. Gibson, M. C., Fort Benning, Chief Medical Service, Station Hospital; Remarks by Dr. Edgar H. Greene, Atlanta, president of the Medical Association of Georgia; Report of Council, Dr. W. G. Elliott, Cuthbert, and Business session. Following the meeting the members of the Fort Benning Medical Society were hosts to the physicians and their wives at the Fort Benning Officers Club for refreshments and dinner. Officers are: Dr. Lee Williams, Cordele, president; Dr. Guy Dillard, Columbus, vice-president, and Dr. Robert C. Pendergrass, Americus, secretary.

* * *

Dr. Richard Torpin, Augusta, professor of obstetrics and gynecology of the University of Georgia School of Medicine, was director of a special course in obstetrics held at the University of Georgia School of Medicine, Augusta, December 6-10. Fifty physicians from Georgia and South Carolina attended the obstetric institute, which is an annual event sponsored by the Child Health and Maternal divisions of the state health departments of Georgia and South Carolina. It is largely for the benefit of physicians in rural sections of the two states. Speakers of the institute are members of the American Board of Obstetrics and Gynecology.

* * *

Southwest Georgia physicians attend symposium on cancer. Doctors from 13 counties in South Georgia and nearby counties in Florida met in Thomasville December 15 for another in the state-wide series of cancer symposiums being held jointly by the Cancer Division of the Georgia Department of Public Health, the Medical Association of Georgia, and the American Cancer Society, Georgia division. Aim of the series is to bring as many Georgia physicians as possible

the latest information on the detection, diagnosis and treatment of cancer. Dr. Kirk Shepard, Thomasville, director of the Thomasville Cancer Clinic, presided over the sessions which drew physicians from Early, Baker, Miller, Seminole, Decatur, Grady, Mitchell, Worth, Colquitt, Thomas, Brooks, Tift and Cook counties. Program: "Chemotherapy in Neoplastic Disease with Special Emphasis on Lymphomas", Dr. Charles Huguley, Atlanta; "Bone Tumors", Dr. Paul Reith, Atlanta, and "Tumors of the Neck and Sialivary Glands", Dr. Robert Brown, Atlanta.

* * *

Dr. William R. Thompson, Atlanta, announces the opening of his office at 73 Eleventh Street, N. E., Atlanta, for the practice of obstetrics and gynecology.

* * *

Dr. John H. Venable, Dalton city-county health commissioner, recently attended a five-day Georgia Pediatric Conference in Atlanta. The conference is sponsored by the Georgia Department of Public Health under the theme "Better Understanding of Children," the aim of the conference which was held at Crawford W. Long Nurses' Home.

* * *

Dr. Frank Vinson, Fort Valley physician, has been reappointed to serve on the staff of the Mercy Hospital, Macon, which means that the hospital's facilities are available to him for the practice of internal medicine. Dr. J. B. Kay, of Byron, is also a member of the hospital staff.

* * *

Dr. J. L. Walker, Clarkesville physician, was elected president of the Habersham County Medical Society for 1949 at a meeting of the society December 16. He succeeds Dr. B. J. Roberts, Cornelia, past president. Other officers are: Dr. D. H. Garrison, Clarkesville, vice-president; Dr. Joe J. Arrendale, Cornelia, secretary-treasurer, who was also elected delegate to the Medical Association of Georgia annual session to be held at Savannah May 10-13; Dr. B. J. Roberts, Cornelia, was named alternate delegate. Censors: Dr. J. B. Jackson, Clarkesville and Dr. T. H. Brabson, Cornelia. According to Dr. Walker, the society voted to support any movement on the part of the reorganized County Hospital Authority for a county hospital.

* * *

The Ware County Medical Society annual Christmas supper party was held at the Okefenokee Golf Club, Waycross, with Drs. W. F. Reavis, Lovick Pierce and Ed Roe Stamps hosts. Dr. Reavis has been host to the Christmas party for about 31 years and this event is anticipated with great interest by the members. Nineteen hundred forty-nine officers are: Dr. Harold W. Muecke, Waycross, president; Dr. W. A. Hendry, Blackshear, vice-president; Dr. Joseph R. Gay, Waycross, secretary-treasurer; Dr. W. L. Pomeroy, Waycross, delegate; Dr. Leo Smith, Waycross, alternate delegate; Board of Censors: Drs. W. M. Flanagan, H. A. Seaman, and W. A. Hendry. At the business meeting a resolution was read on the death of Dr. C. A. Witmer, Waycross, who served as physician for more than 30 years. A resolution was also read concerning the untimely death of Dr. J. H. Carswell, Waycross physician. At the suggestion of Dr. Pierce the group stood for a moment of silence in their memory. Dr. Reavis spoke on the importance of the society winning a place on the honor roll by prompt payment of dues. In his acceptance speech Dr. Muecke voiced the hope that he will be able to live up to the record of his predecessor, Dr. Braswell Collins. "We are entering upon difficult times in the profession," he commented, and asked the cooperation of all.

* * *

The annual meeting of the Georgia Society of Ophthalmology and Otolaryngology will be held at the General Oglethorpe Hotel in Savannah March 4-5, 1949.

The distinguished lecturers and their tentative subjects are: Dr. Paul A. Chandler of Boston, Glaucoma Management; Dr. Jack S. Guyton of Baltimore, Cataract Management; Dr. Oscar C. E. Hansen-Pruss of Durham, Allergy of the Upper Respiratory Tract; Dr. Marvin F. Jones of New York, Management of Ear Problems in Children and An Otological Survey; Dr. Ralph O. Rychener of Memphis, External Eye Diseases and Dacryocystitis; Dr. Fletcher D. Woodward of Charlottesville, Problems in Laryngology.

OBITUARY

Dr. George Otis Castellaw, aged 64, prominent Jackson County physician, landowner, and former mayor of Commerce died at his home in Commerce, January 23, 1949. Dr. Castellaw was a native of Henry County. He graduated from the Atlanta College of Physicians and Surgeons, now Emory University School of Medicine, Atlanta, in 1913. He had practiced medicine in Jackson County for nearly 35 years. He had operated the Commerce Hospital for the past 16 years. Before coming to Commerce he owned and operated a hospital at Maysville. Dr. Castellaw also had been active in civic circles for many years. He was a deacon in the First Baptist Church, Commerce, a member of the Odd Fellows, Kiwanis Club, and a Mason. Survivors include his wife, Mrs. Lydie Nix Castellaw; two sons, G. Wilburn and Otis Castellaw, of Commerce; three daughters, Mrs. Guy W. Eberhardt, Bristol, Va.; Mrs. R. J. Earl, Savannah; Mrs. Reese C. Eberhardt, Augusta; two brothers, and two sisters. Funeral services were held at the First Baptist Church with the Rev. C. C. Tooke officiating. Burial was in Grey Hill Cemetery, Commerce.

* * *

Dr. Wilson Jackson Smith, aged 70, beloved physician and surgeon of Jackson County died at his home in Forsyth January 23, 1949. Dr. Smith was a native of Butts County, the son of the late Wilson Smith and Mary Anne Watkins Smith. He graduated from the Georgia College of Eclectic Medicine and Surgeons, Atlanta, in 1900, with honors. He began the practice of medicine immediately in Jackson. He moved to Juliette in 1906 and made his home there until 1945 when he moved to Forsyth. Dr. Smith had practiced medicine for almost 49 years, 43 of which were spent in Monroe County. He never desired to claim credit for himself, but thought that any credit he might deserve should be given the medical profession as a whole. His colleagues had the highest opinion of his ability. Survivors are his wife, the former Miss Hattie O'Rear, of Jackson; a daughter, Mrs. W. B. Freeman, and a son Lewis G. Smith, all of Forsyth; a brother, O. E. Smith, Jackson, and four grandchildren. Funeral services were held at the First Baptist Church, Forsyth, with Dr. H. P. McDonald and the Rev. J. T. Burrell officiating. Burial was in the family cemetery, Jackson.

* * *

Dr. Howard Gilbert Wallis, aged 66, Columbus physician, died at the City Hospital January 5, 1949. Dr. Wallis was the son of the late Dr. and Mrs. F. W. Wallis, of Fayetteville. He graduated from Atlanta School of Medicine now Emory University School of Medicine, Atlanta, in 1908. He had practiced medicine in Columbus for 26 years. He was of the old school; a member of the old time family of doctors who never asked, or seemed to give much thought to the material end of the practice of medicine, but always held the patient, and his physical condition, as being first in his mind. He was never known to refuse to attend a patient because he could not pay his bill. Dr. Wallis was active in civic and political affairs. He was a member of the Eastern Heights Baptist Church, and a Mason. Survivors are his wife, Mrs. Lillian Pearl Wallis; a stepson, Capt. Charles E. French, U. S. Air Force, Germany; a stepdaughter, Mrs. Fred Matthe-

son, Columbus; two brothers; two sisters; three grandchildren, and several nieces and nephews. Funeral services were held at the Eastern Heights Baptist Church with the Rev. E. M. Altman, pastor, officiating, assisted by Dr. O. B. Newsom. Burial was in Riverdale Cemetery, Columbus.

NEW BOOKS

CLINICAL ASPECTS AND TREATMENT OF SURGICAL INFECTIONS, by Frank Lamont Meleney, M.D., F.A.C.S., Associate Professor of Clinical Surgery, College of Physicians and Surgeons, Columbia University; Associate Visiting Surgeon, Presbyterian Hospital, New York City. With foreword by Allen O. Whipple, M.D. 840 pages with 287 figures.

This brand new book deals with the TREATMENT OF SURGICAL INFECTIONS—not the laboratory details. It tells you how to use antibiotics and which ones. It gives you dosage, sites of administration and technic. Of course, of necessity, it gives you diagnosis, too; but it is primarily a new book of today's treatment of surgical infections. It is strictly clinical. Dr. Meleney confirms his judgment with case histories. Published by W. B. Saunders Company, 1949, Philadelphia and London. Price \$12.00.

* * *

BLOOD TRANSFUSION, by Elmer L. DeGowin, M.D., Associate Professor of Internal Medicine, State University of Iowa; Robert C. Hardin, M.D., Assistant Professor of Internal Medicine, State University of Iowa; and John B. Alsever, M.D., Senior Surgeon, U. S. Public Health Service. 587 pages with 200 diagrammatic drawings.

In this new book—the only one of its kind in print, to our knowledge—both whole blood and plasma transfusions are covered in great detail. The following topics are discussed: Clinical use of blood and its derivatives; immunology of blood; technical data; transfusion of whole blood; preparation and administration of plasma; preparation and administration of blood derivatives and plasma substitutes; transfusion services; and transfusion apparatus. The description of laboratory technics is illustrated in such a way that the pictures (arranged in columns down the outside margin of the pages) make up an easily-followed "flow chart" of step-by-step procedures.

Every surgeon and every laboratory and hospital library will, of course, need this book. And the thoughtful general practitioner will consider it a wise investment against the emergencies—especially shock—with which he must occasionally deal. Published by W. B. Saunders Company, 1949, Philadelphia and London. Price \$9.00.

* * *

THE BUSINESS SIDE OF MEDICAL PRACTICE: by Theodore Wiprud, Executive Director and Secretary of the Medical Society of The District of Columbia and Managing Editor of the Medical Annals of the District of Columbia. Second Edition. 232 pages with 22 figures.

Here, in this handy 232-page book, is the information you need to handle intelligently the business aspects of your practice. Here is expert and absolutely reliable advice on organizing your time, systematizing office routine, keeping financial and case records, writing effective collection letters to delinquent debtors (actual sample letters are given), testifying in court, making speeches, planning an intelligent investment program, and many other equally important topics.

This new (2nd) edition is, of course, completely up-to-date in every way (among the new chapters is one on Group Medical Practice). Every doctor should have a copy for the use of his secretary as well as for himself, because no doctor has had the time or opportunity to learn modern business methods. To assure yourself that you are not wasting time and money through inefficient office methods, order this

book today. Published by W. B. Saunders Company, 1949. Philadelphia and London. Price \$3.50.

* * *

OBSTETRIC ANALGESIA AND ANESTHESIA—Their Effects upon Labor and the Child: by Franklin F. Snyder, M.D., Associate Professor of Obstetrics and Associate Professor of Anatomy, Harvard Medical School. 401 pages with 114 figures and 18 tables.

Because the most controversial problem in obstetrics today is relief of pain in labor, this brand new and thoroughly up-to-date book is certain to assume immediate importance as a reference source for obstetricians, pediatricians, anesthetists, and general practitioners who have even a passing interest in obstetrics.

In clear and straightforward style the author evaluates the various anesthetic and analgesic agents in respect to: 1, potency in the relief of pain; 2, effect upon the fetus; and 3, effect upon the mother, especially the labor mechanism. He also provides 200 pages of vitally important information on respiratory injuries of the child (atelectasis, asphyxia, etc.). Published by W. B. Saunders Company, 1949. Philadelphia and London. Price \$6.50.

* * *

MAYO CLINIC DIET MANUAL: by The Committee on Dietetics of the Mayo Clinic. 329 pages. The dietary procedures outlined in this book were developed for the guidance of physicians, fellows, dietitians and dietetic interns and nurses of the Mayo Foundation, the Mayo Clinic and the hospitals of Rochester, Minnesota. The material was prepared for use intramurally in teaching and in the planning of diets for patients. The diets are described in technical terms. They are designed for use by persons with training in medicine or dietetics and are not intended for direct distribution to patients. Because the science of nutrition is continuing to develop, and knowledge of disease is likewise making rapid headway, it is clear that many of the dietary recommendations of today will soon be out of date. Frequent revised reprintings of this book are contemplated. The general practitioner will find this book of great value in treating patients with nutritional deficiencies. Published by W. B. Saunders Company, 1949, Philadelphia and London. Price \$4.00.

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ESSENTIALS OF GYNECOLOGIC ENDOCRINOLOGY: by Gardner M. Riley, Ph.D., Assistant Professor of Obstetrics and Gynecology, University of Michigan Medical School, Ann Arbor. 205 pages. The book is designed, to quote from its preface, "as a source of endocrine information for medical students, interns, and those of the medical profession whose daily lot it is to deal with the vagaries of male or female gonadal function". In the chapters dealing with the clinical manifestations of various gynecologic disorders such as amenorrhea and the menorrhagia, the author is concerned only with endocrine implications of these conditions. This limitation of viewpoint serves to direct disproportionate attention to the functional aspects of these disorders. It cannot be too strongly emphasized that one must first investigate the possibility of organic, systemic, constitutional, or psychic causes before delving into the all too controversial and theoretical aspects of endocrinial cause and treatment. Published by Caduceus Press, Box 17, Ann Arbor, Michigan, 1948. Price \$3.00.

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SYNOPSIS OF PEDIATRICS, by John Zahorsky, A.B., M.D., F.A.C.P., Professor of Pediatrics and Director of the Department of Pediatrics, St. Louis University School of Medicine, St. Louis. Assisted by T. S. Zahorsky, B.S., M.D., Senior Instructor in Pediatrics, St. Louis University School of Medicine. Fifth edition. Price \$5.50. Pp. 449, with 167 illustrations. C. V. Mosby Company, 3207 Washington Blvd., St. Louis 3, 1948.

In the fifth edition of this well known volume of pediatrics, some minor alterations have been made in keeping with recent advances. Some of the newer drugs are only mentioned; i.e., diphenhydramine ("benadryl"). There are 158 text illustrations, of which many are from the original edition. Some of these are obsolete, as for example the illustration of the technic for intramuscular injection of blood into the buttocks in hemorrhagic disease and icterus gravis. This present edition will continue to be a most practical and useful manual for the busy general practitioner.—*The Journal of the American Medical Association*, Oct. 9, 1948.

* * *

YOUR BABY: by Shultz and Hill. This book is an excellent text for not only parents and parents-to-be, but also for physicians who want a source of good general information about a baby.

The material is well presented, written by able authors and proof read by authorities. It is one of the best books to use as a guide for the feeding and rearing of children, taking into consideration the physical, emotional and psychological aspects, both normal and abnormal.

In this copy of the book the first page of chapter I, "Understanding Your Yearling", is misplaced and is situated as the first page of the chapter dealing with "Disturbances of the Small Baby and What to Do."

"I heartily endorse this guide to rearing "Your Baby".

J. HARRY LANGE, M. D.

COUNTIES REPORTING FOR 1949

Appling County Medical Society

President—James A. Bedingfield, Baxley
Vice-President—H. C. McCracken, Baxley
Secretary-Treasurer—J. B. Brown, Jr., Baxley

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Baldwin County Medical Society

President—Sam A. Anderson, Milledgeville
Vice-President—Robert B. Crichton, Milledgeville
Secretary-Treasurer—Melvin E. Smith, Milledgeville
Delegate—Charles B. Fulghum, Milledgeville
Alternate Delegate—Thomas G. Peacock, Milledgeville
Censors: Y. H. Yarbrough, R. W. Bradford, Veronica M. Pennington

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Banks County Medical Society

Secretary-Treasurer—J. S. Jolley, Homer

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Burke County Medical Society

President—Charles G. Green, Waynesboro
Vice-President—W. W. Hillis, Sardis
Secretary-Treasurer—E. A. Bargeron, Waynesboro
Delegate—J. M. Byne, Jr., Waynesboro

* * *

Clayton-Fayette Medical Society

President—Y. R. Coleman, Fayetteville
Vice-President—J. L. Robak, Jonesboro
Secretary-Treasurer—T. J. Busey, Fayetteville
Delegate—Y. R. Coleman, Fayetteville

* * *

Dougherty County Medical Society

President—W. P. Rhyne, Albany
Vice-President—J. Z. McDaniel, Albany
Secretary-Treasurer—Paul T. Russell, Albany
Delegate—Paul T. Russell, Albany
Alternate Delegate—W. Frank McKemie, Albany
Censors: J. M. Barnett, J. C. Keaton, and J. A. Redfearn

* * *

Elbert County Medical Society

President—A. S. Johnson, Elberton
Vice-President—Carey A. Mickel, Jr., Elberton
Secretary-Treasurer—John B. O'Neal, III, Elberton
Delegate—D. N. Thompson, Elberton
Censors: A. S. Johnson, Jr., W. A. Johnson, and G. A. Ward

Emanuel County Medical Society

President—S. S. Youmans, Swainsboro
Vice-President—R. G. Brown, Swainsboro
Secretary-Treasurer—H. W. Smith, Swainsboro
Delegate—C. E. Powell, Swainsboro
Alternate Delegate—R. G. Brown, Swainsboro
Censors: S. S. Youmans, R. G. Brown, and C. E. Powell

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Franklin County Medical Society

President—Stewart D. Brown, Royston
Secretary-Treasurer—E. T. Poole, Lavonia
Delegate—R. E. Ridgway, Royston

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Glynn County Medical Society

President—Thomas W. Collier, Brunswick
Vice-President—Ira G. Towson, Sea Island
Secretary-Treasurer—H. L. Moore, Brunswick
Delegate—J. B. Avera, Brunswick
Alternate Delegate—H. L. Moore
Censors: H. M. Coe, J. O. Simmons, and C. A. Wilson, Jr.

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Hall County Medical Society

President—E. W. Grove, Gainesville
Vice-President—L. G. Neal, Jr., Cleveland
Secretary-Treasurer—John M. Hulsey, Jr., New Holland
Delegate—L. G. Neal, Jr., Cleveland
Alternate Delegate—J. Gregg Smith, Gainesville
Censors: Hartwell Joiner, John M. Hulsey, Jr., and J. K. Burns, Jr.

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Hancock County Medical Society

President—Horace Darden, Sparta
Secretary-Treasurer—H. L. Earl, Sparta
Delegate—C. S. Jernigan, Sparta

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Jasper County Medical Society

President—F. S. Belcher, Monticello
Vice-President—Albert Fisher, Jr., Monticello
Secretary-Treasurer—E. M. Lancaster, Shady Dale
Delegate—F. S. Belcher, Monticello

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Jenkins County Medical Society

President—A. P. Mulkey, Millen
Vice-President—W. G. Simmons, Sylvania
Secretary-Treasurer—Cleveland Thompson, Millen
Delegate—Cleveland Thompson, Millen
Alternate Delegate—W. G. Simmons, Sylvania

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Macon County Medical Society

Secretary-Treasurer—Thos. M. Adams, Montezuma

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Montgomery County Medical Society

Secretary-Treasurer—J. W. Palmer, Ailey

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Randolph-Terrell Medical Society

President—J. C. Tidmore, Dawson
Vice-President—J. C. Patterson, Cuthbert
Secretary-Treasurer—W. G. Elliott, Cuthbert
Delegate—J. C. Tidmore, Dawson
Alternate Delegate—A. R. Sims, Richland
Censors: A. R. Sims, J. C. Tidmore, and F. S. Rogers

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Richmond County Medical Society

President—W. J. Williams, Augusta
Vice-President—F. N. Harrison, Augusta
Secretary-Treasurer—Charles McL. Mulherin, Augusta
Delegate—George W. Wright, Augusta
Delegate—W. J. Williams, Augusta
Delegate—David R. Thomas, Jr., Augusta
Censors: David R. Thomas, Jr., C. G. Henry, and Perry P. Volpitto

Rockdale County Medical Society

Secretary-Treasurer Harvey E. Griggs, Conyers

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Tattnell County Medical Society

President—J. M. Hughes, Glennville

Vice-President—L. V. Strickland, Cobbtown

Secretary-Treasurer—W. C. McCarver, Glennville

Delegate—A. G. Pinkston, Glennville

Censors: A. C. Colson, L. R. Jelks, and A. G. Pinkston

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Telfair County Medical Society

President—C. J. Maloy, McRae

Vice-President—Frank R. Mann, Jr., McRae

Secretary-Treasurer—F. R. Mann, McRae

Delegate—F. R. Mann, Jr., McRae

Censors: W. H. Born, C. J. Maloy, and S. T. Parkerson

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Tift County Medical Society

President—Carl S. Pittman, Jr., Tifton

Vice-President—R. E. Jones, Tifton

Secretary-Treasurer—R. K. Winston, Tifton

Delegate—R. K. Winston, Tifton

Alternate Delegate—W. F. Zimmerman, Tifton

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Walton County Medical Society

President—Ernest Thompson, Monroe

Vice-President—M. W. Anderson, Social Circle

Secretary-Treasurer—Samuel J. DeFreese, Monroe

Delegate—Lynn M. Huie, Monroe

Alternate Delegate—Homer Head, Monroe

* * *

Ware County Medical Society

President—H. W. Muecke, Waycross

Vice-President—W. A. Hendry, Blackshear

Secretary-Treasurer—Joseph R. Gay, Waycross

Delegate—W. L. Pomeroy, Waycross

Alternate Delegate—Leo Smith, Waycross

Censors: H. A. Seaman, W. A. Hendry, and W. M.

Flanagan

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Warren County Medical Society

President—H. B. Cason, Warrenton

Vice-President—F. L. Ware, Warrenton

Secretary-Treasurer—A. W. Davis, Warrenton

Delegate—H. T. Kennedy, Warrenton

Censors: A. W. Davis, H. B. Cason, F. L. Ware, and

H. T. Kennedy

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Washington County Medical Society

President—William Rawlings, Sandersville

Vice-President—W. R. King, Tennille

Secretary-Treasurer—Marion W. Hurt, Sandersville

Delegate—Emory G. Newsome, Sandersville

Alternate Delegate—N. J. Newsom, Sandersville

Censors: O. D. Lennard, O. L. Rogers, and B. L.

Helton

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Whitfield County Medical Society

President—John H. Venable, Dalton

Vice-President—Truman W. Whitfield, Dalton

Secretary-Treasurer—H. J. Ault, Dalton

Delegate—Fred R. Ragland, Dalton

Censors: G. L. Broaddrick, Truman W. Whitfield, and James E. Bradford

UNDERSTANDING THE MIND

When the emotions are stirred up, a mental conflict may arise which, too often, results in a "cracking up" of the mind, and another mental patient is added to the list already on record. If proper mental training and adjustment had been taught in childhood, many of the emotional "crack-ups" in the adult could have been averted, according to the Educational Committee of the Illinois State Medical Society in a *Health Talk*.

Adjustment is a process of meeting each problem as it appears. Certain adults have mastered this, show-

ing, to a degree, a disposition to be upset or nervous as each problem arises, only to "fold up" when something out of the ordinary happened.

Worry over unemployment, an unhappy love affair, an alcoholic husband or wife, a sense of guilt—worry, in any form, is the leader of mental ills. Worry is actually fear in an abnormal state and there are many persons who have this mental fear to such a degree that they are completely obsessed by it. With worry the mind is never at rest.

The relationship between the body and mind is well established. Because of the overwrought mental quirks of the mentally ill person, many imaginary physical conditions are reported. Torn by the constant worry and fear of life's complexities, the victim goes from doctor to doctor in search of a cure for his complaint—a burning in the stomach, a severe pain in the head or a steady itchiness, symptoms with no outward manifestations.

And thus enters the psychiatrist, for it is this specialist that probes the mental processes, bringing to light repressions and inhibitions that may have been hidden for many years, only to become active as new emotional problems are encountered.

During the war, almost two million draftees were rejected for mental and personality disorders. In spite of this screening about forty per cent of all medical discharges were due to some mental or emotional disturbance. Some were never near the front and yet they became paralyzed, deaf, or blind; others lost their memories temporarily and unconsciously they used these methods to escape trying situations.

And escape seems to be the crux of the situation. These people, had they not been thrust into a new role requiring adjustment, might have gone on in the everyday world with a semblance of normalcy. A percentage, however, would have reacted the same way had a problem developed from which they wished to escape.

Persons afflicted with this emotional imbalance should consult a psychiatrist with a frank approach and discussion. It is the frankness that will assist in uncovering the cause. Every symptom has a meaning, even though it may be distorted.

It is important to remember, too, that every individual, however well adjusted, under severe external stress and inner conflicts will occasionally evidence neurotic symptoms.

The process of mental rehabilitation includes certain defined steps: Reeducation, by which the physician attempts to replace old and unhealthy habits with new and healthy ones; persuasion, where the patient is made to take an active part in reasoning himself out of his illness; and suggestion, where an attempt is made to minimize the dreaded symptoms of the illness and to replace them with healthier thoughts, feelings and interests.

CONVENTION NEWS

The Medical Association of Georgia will celebrate its 100th birthday at the Hotel DeSoto, Savannah, May 10-13.

At that party, and it will be a happy occasion, every reputable white physician of Georgia who has practiced medicine 50 years, or more, will be presented a Certificate of Distinction.

Please make your hotel reservations now.

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No. 3

PROPIONIC ACID IN THE THERAPY OF MYCOTIC VULVOVAGINITIS: A METHOD OF DIAGNOSIS

ROLAND R. SURAN, M.D.,

and

ROBERT B. GREENBLATT, M.D.

Augusta

The methods of therapy in the management of mycotic vulvovaginitis in the past have been found wanting. The multitude of suggested remedies was ample evidence for the inefficiency of these therapeutic procedures in the eradication of the yeast-like offenders, and the permanent relief of symptoms. Gentian violet, used as a one per cent aqueous solution, was the most popular method, but at best the results were all too uncertain.

Recently a new chemical agent has been introduced in the therapy of mycotic vulvovaginitis, which offers hope of a much greater percentage of cures in addition to its ease of administration. Keeney and co-authors^{1,2} reported on the fungistatic and fungicidal action of the propionates on *Candida* (*Monilia*) *albicans* and other fungi. They suggested the use of propionates in the treatment of mycotic vulvovaginitis. In a recent article Alter, Jones and Carter³ showed encouraging results using a vaginal jelly containing calcium and sodium propionates as the active ingredients. All of their 54 patients with mycotic vulvovaginitis received relief from the pruritus vulvae within seventy-six hours. Eighty per cent of the nonpregnant and 39 per cent of the

pregnant patients were cured of the infection, as proved by culture, following one course of treatment.

Incidence

In a study of the vaginal flora in the normal female, Carter and Jones⁴ were able to culture yeast-like organisms from 32 per cent of 114 obstetric patients, and 14 per cent of 100 gynecologic patients. Studies of pregnant women by Woodruff and Hesseltine⁵ showed positive results in from 15 to 33 per cent of white, and 41 per cent of colored females. In the non-pregnant patients the incidence was comparatively low, ranging from 7 to 16 per cent. In a similar study, Minnich⁶ reported positive vaginal yeast cultures in 40 per cent of 112 patients.

Hesseltine⁷ stated that positive cultures were obtained far more commonly from patients complaining of vulvar irritation than in those who were symptom free. In a series of 232 obstetric patients, positive cultures were obtained in 56 per cent of 48 women with vulvar irritation, and only 32 per cent of 184 patients without vulvar complaint. Similarly, of 320 nonpregnant patients 18 per cent of the 118 with symptoms, and only 7 per cent of the 202 without symptoms, revealed positive results. Adult diabetic patients without vulvitis showed only 12.5 per cent with positive cultures, an incidence comparable to that found in an average group of nonpregnant women, whereas 95 per cent of the diabetics with vulvitis were found to harbor the yeast-like organisms. Hesseltine concluded that every patient with mycotic vulvitis should be examined for diabetes mellitus, and

From the Department of Endocrinology, University of Georgia School of Medicine.

Presented before the Medical Association of Georgia at its annual session, Atlanta, April 30, 1948.

every diabetic patient with vulvar irritation should be examined for mycotic infection.

Symptoms and Signs

Pruritus vulvae was the chief complaint. All of our patients complained of vulvar or vaginal irritation, which varied in degree from slight to intolerable. The itching usually was increased during the premenstrual phase, and commonly relieved during the menstrual period. On the other hand, trichomoniasis caused maximum intensity of symptoms during and immediately following menstruation. Other complaints frequently noted were smarting and burning, especially following urination, rawness of the vulva and vagina, and discharge. The discharge was present in patients with severe infections. Many patients complained of dyspareunia, and examination, either digitally or by speculum, was very painful. All complaints frequently were aggravated at night. Delivery usually brought symptomatic relief in pregnant women. The complaints were very variable, and the condition showed a tendency towards spontaneous symptomatic cure, but occasional cases became chronic and produced recurrent irritation over a period of months or years.

Negative physical findings were encountered in several patients with itching. More frequently the vulvar and vaginal mucosa were reddened and congested. In the more severe cases edema was present. The redness sometimes involved the skin around the anus and inner aspects of the thighs, with excoriations from scratching commonly seen. Vaginal discharge was not characteristic, and when present was thin, or thick and yellowish. White flakes occasionally were present in the secretions. Thrush-like patches, resembling oral thrush or vaginal diphtheria, at times occurred on the mucosa of the vulva, vagina or cervix. Small ulcerations were found on the skin or mucosa in

a few cases.

Diagnosis

Any patient complaining of vulvar or vaginal irritation, with or without a discharge, should arouse the suspicion of the presence of trichomoniasis or mycosis. Microscopic examination under the high dry power, of a fresh smear or hanging drop preparation of the vaginal secretions, may reveal the pathogenic agent. The finding of trichomonads in the discharge should not deter the physician from further search for the presence of yeast-like organisms. Plass, Hesseltine and Borts⁸ have stated that when both organisms were present in the discharge, treatment directed towards the elimination of the fungus relieved the irritation, although the trichomonads remained in considerable numbers. The mycelia and conidia may be readily demonstrated by staining the smear with Wright's or Gram's solutions. The fungus is strongly gram positive. When the smears fail to reveal the organisms, the vaginal secretions should be cultured in Sabouraud's or other media.

A simple method of culture used by us⁹ has yielded a high percentage of positive results in many suspected but unproven cases. Cultures were taken on all patients complaining of vulvar or vaginal irritation. The vagina is swabbed with a sterile swab stick prior to pelvic examination. Using sterile technic, the swab is inserted into a sterile test tube containing a few cubic centimeters of normal saline, twirled around several times in order to inoculate the saline with the vaginal secretions, and then removed. The swab may be used to prepare a fresh smear, and immediate examination made for the presence of trichomonads and yeast-like bodies. The cotton plugged sterile tube is allowed to remain at room temperature for forty-eight hours. The glycogen and debris from the vaginal cells, and the acidity of the vaginal secretions, as well as

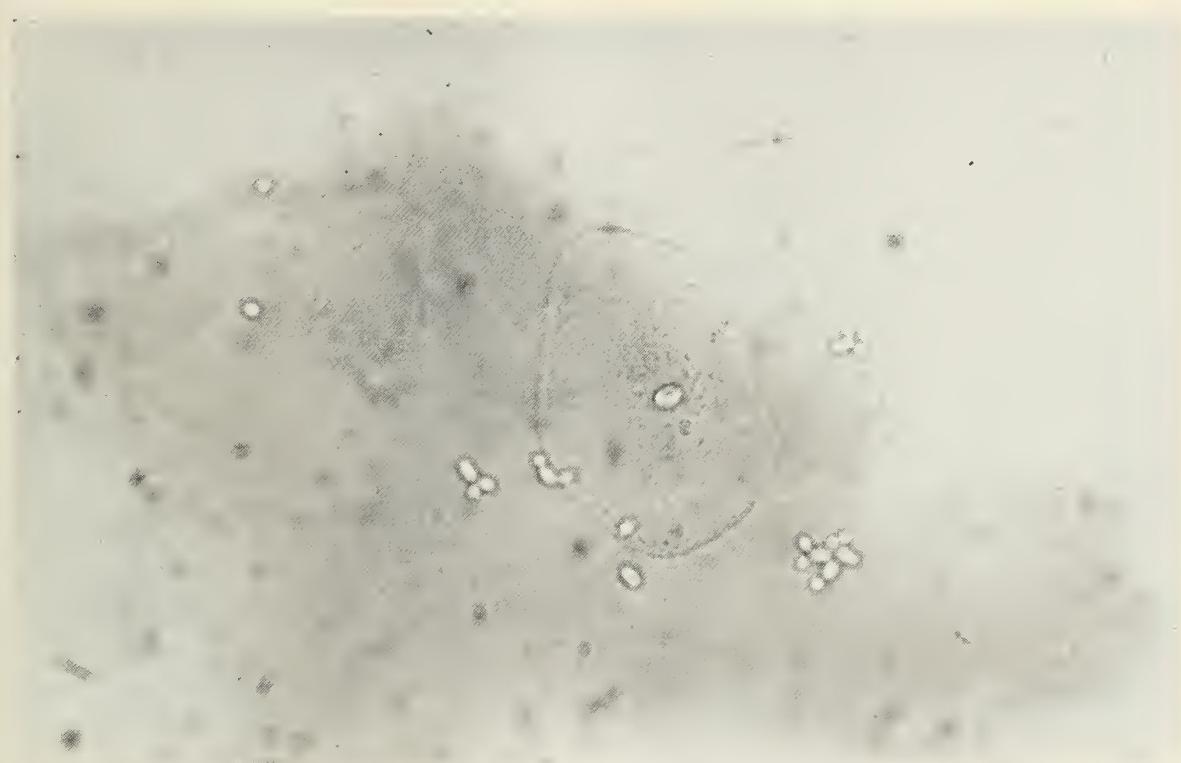


Figure 1. Unstained smear prepared from 48-hour saline culture of vaginal secretions. The yeast-like organisms are abundant, and occur singly or in groups of two or more. Minute buds may be seen at the ends of the yeast-like bodies. High dry power.

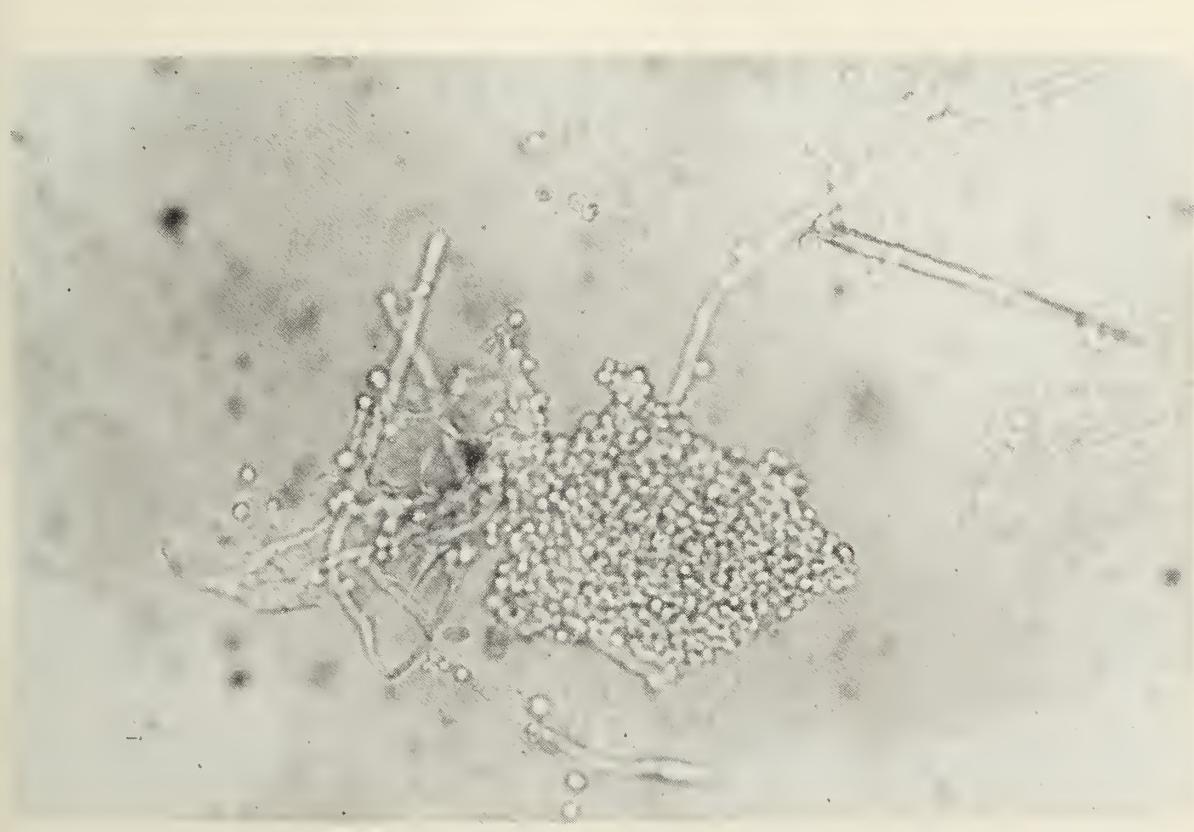


Figure 2. Unstained smear prepared from two-day culture demonstrating yeast-like bodies and mycelia. High dry power.



Figure 3. Unstained smear of two-day culture showing yeast-like organisms and mycelia. The refractile membrane and minute nuclear point of the conidia are well demonstrated. High dry power.



Figure 4. Stained smear demonstrating yeast -like bodies and mycelia. Oil immersion.

the salt present in the saline solution, makes for a favorable medium for the growth of this organism. In many ways this simple culture medium simulates conditions as found in the vaginal canal. An unstained smear is then prepared, and search made for the yeast-like bodies (Fig. 1), and the branching, thread-like mycelia (Fig. 2). The conidia are small, varying in size from 2.5 mu. to 7.0 mu., and are oval to olive-shaped. They have a slightly refractile membrane, and a minute nuclear point in the body (Fig. 3). Staining the smear with Wright's solution will reveal the basic colored mycelia, and yeast-like bodies (Fig. 4). When the 48 hour culture fails to reveal the organisms, the tube is again set aside, and re-examined at the end of one week. In several instances where negative results were obtained after two days growth, search of a smear made from the week-old culture revealed the organisms in abundant numbers. When the smear from a culture which has been allowed to stand for one week is stained with Wright's solution, the degenerating mycelia take a pink color, whereas the conidia retain the basic dye.

This procedure can be accomplished in the physician's office, and does not require the facilities of a bacteriologic laboratory for the culture and specification of the fungus. Carter, Jones, Ross and Thomas¹⁰ studied the yeast-like fungi cultured from pregnant patients. They were able to culture fungi belonging to the genera *Saccharomyces* and *Cryptococcus* in those patients who were symptom free, but concluded that only the fungi belonging to the genus *Candida* were found in the patients with symptoms. Thus, when fungi can be demonstrated by smear, after simple saline culture of the vaginal secretions from a patient complaining of vulvar or vaginal irritation, the existence of mycotic vulvovaginitis can be assumed. Smears should not be considered negative until the final search of the

week-old culture.

Methods of Therapy

Patients in whom the saline culture revealed the presence of yeast-like organisms were given one or two tubes of jelly containing propionic acid, and calcium and sodium propionates*, with an applicator similar to that used for the delivery of contraceptive jelly into the vagina. The capacity of the applicator was about 10 cc. The patients were instructed to insert the applicator deeply into the vaginal canal, so that the jelly would be deposited in the posterior fornix. They were told to administer one applicator full of jelly each night before retiring, and to take a soda bicarbonate douche the following morning. The administration was continued until the contents of the tube, or tubes, had been used, and then the patient was asked to return for follow-up cultures. Additional tubes of jelly were given to those patients whose symptoms persisted, or in whom the cultures were found to be positive at the time of re-examination. They were told to return when the second course of therapy was completed.

Results

During the past six months cultures were taken on 120 private patients in whom there was some subjective or objective evidence of vaginitis. From these, positive cultures were obtained in 59 patients. Treatment was instituted in the majority of the cases with positive cultures, but only 37 were eligible for this report (Table 1). The remainder were eliminated because they did not receive any therapy, or failed to return and report the results of the medication. It may be assumed that satisfactory alleviation of symptoms occurred in those patients who did not return following one course of treatment. All 37 women were white. Eight of the patients in this series were pregnant.

* The jelly used in this study was generously supplied through the courtesy of Dr. Edward F. Roberts of Wyeth Incorporated in the form of "Propion Gel".

TABLE 1
Propionic Acid in the Therapy of Mycotic Vulvovaginitis

Total Number of Patients Treated	Symptoms		Culture		Culture Not Taken
	Relieved	Failed	Negative	Positive	
Pregnant					
8	8 (100%)	0	4 (50%)	3	1
Non-pregnant					
29	27 (93%)	2	10 (34%)	7	12

All eight pregnant patients were completely relieved of symptoms following therapy with one or more tubes of the jelly. In four patients (50 per cent) cure was obtained from the infection, as shown by negative cultures. Three patients were considered as cultural failures; the cultures remained positive even after repeated courses of therapy. In the remaining patient, no follow-up culture was taken. However, these patients were entirely asymptomatic.

Ninety-three per cent of the 29 nonpregnant patients obtained alleviation from the symptoms. Ten patients had negative cultures following treatment, and were regarded as cured of the infection. Seven patients showed positive cultures, although five did not have any symptoms. Twelve patients did not have cultures taken, but all were relieved of their symptoms. In two patients there were both symptomatic and cultural failure. Several tubes of the jelly failed to relieve the patients' symptoms or eliminate the yeast-like organisms from the vaginal secretions. Repeated examinations did not reveal another cause for the vaginitis in either case.

Although the cultures remained positive in many of the patients, the merit of this form of therapy should not be based solely on this criterion. Several of the cases in this group had severe symptoms for lengthy

periods. Many forms of treatment had been attempted without any success. Examination revealed moderate to marked involvement. Prompt relief of symptoms occurred following therapy with propionic acid jelly, and examination showed definite improvement even though the cultures remained positive.

Summary and Conclusions

Any patient complaining of vulvar or vaginal irritation should be examined for the presence of mycotic vulvovaginitis. A simple method of culture which has yielded a high percentage of positive results in many suspected but unproven cases has been described. The incidence of positive cultures for the yeast-like organisms is higher among pregnant patients and diabetics.

Propionic acid has proved of great value in the alleviation of symptoms due to mycotic vulvovaginitis. Symptomatic relief was obtained in all but two of a series of 37 patients. Complete cure of the infection, as proved by culture, was obtained in 50 per cent of the pregnant, and 34 per cent of the nonpregnant patients. This method of therapy is convenient to use, does not soil the clothing, and eliminates the necessity of frequent visits to the physician.

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HEALTHGRAM

Physical examinations, including a search for latent rales, are of little or no value in the assessment of the status of tuberculous lesions of minimal extent. On the other hand, serial x-ray pictures, and examinations of specimens of sputum or gastric contents obtained from patients who deny cough and expectoration, are invaluable aids in the assessment of the status of minimal pulmonary tuberculosis found on routine x-ray examination of seemingly well persons. Hugh E. Burke, M.D., and John L. Parnell, M.D., Canad. M.A.J., October, 1948.

A SIMPLE STAIN FOR TRICHOMONADS AND VAGINAL EPITHELIA

ROBERT B. GREENBLATT, M.D.

Augusta

Trichomonas vaginalis is readily recognizable in fresh smears when studied microscopically. The staining of trichomonads for morphologic study requires painstaking methods. The demonstration of flagella, the nucleus, and the undulating membrane, may be achieved with difficulty only after meticulous care in the use of complex staining procedures¹. The purpose of this paper is to present a simple method that requires but a few minutes and which has proved satisfactory in revealing all the morphologic features of the trichomonad.

Technic

1. Secretions are obtained from the vaginal canal by inserting a cotton applicator into the vault and then transferring the applicator to a test tube containing 1 or 2 cc. of normal saline.

2. Smears are made by spreading a thin film of the saline suspension onto a glass slide and allowing it to dry in air for a few minutes.

3. Fix the slide for two minutes or more in a mixture of equal parts of 95 per cent alcohol and ether.

4. Cover the slide freshly removed from the alcohol-ether mixture with a few drops of 0.5 per cent alcoholic solution of pinacyanole. (The pinacyanole solution is prepared by dissolving 0.5 Gm. of pinacyanole in 100 cc. of absolute ethyl or methyl alcohol).

5. Add a few cc. of a buffer solution (Wright's buffer solution), distributing it evenly over the whole slide. Allow to stand for 10-15 seconds. (Preparation of buffer: Monobasic potassium phosphate, 6.63 Gm.; dibasic sodium phosphate, 2.56 Gm.; add distilled water to make 1000 cc. The pH should be 6.4).

6. Wash the slide off in running water.

7. Dry by blotting.

8. Drop slide in xylene for 2-10 minutes.

9. Remove slide from xylene and while it is still moist invert over a cover slip on which has been placed a drop of balsam.

Results

1. (a) The trichomonads stain pink to lavender and vary in size and shape. They appear pear-shaped, round or heart-shaped. Most of them are pear-shaped, rounded anteriorly and pointed posteriorly and the axostyle protrudes from the posterior end.

(b) The undulating membrane may be seen on one side of the body.

(c) The flagella, four in number, are distinctly stained, and extend from the anterior rounded surface.

(d) The cytoplasm stains a delicate purple to a pink hue. Ingested particles, vacuoles, may be seen in the cytoplasm.

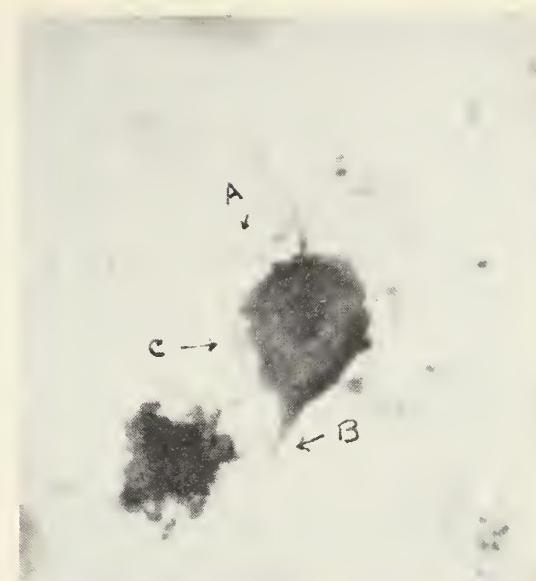


Figure 1. *Trichomonas vaginalis*. Note (a) the flagella, (b) the axostyle, (c) the undulating membrane. The ovoid nucleus is discernible in the mid-part of the cell.

(e) The nucleus is oval shaped and stains crimson. If overstained it appears bluish.

2. Vaginal epithelia stain purplish to mauve and the nuclei stain a deep blue.

3. The vaginal flora takes a variety of tintorial responses and bacilli may stain red and cocci blue. Yeast-like organisms and mycelia (*monilia albicans*) stain a black violet to deep blue.

Of the many stains employed for the morphologic study of the trichomonad this staining procedure offers an opportunity for the most detailed studies and appears to be a far simpler stain than any of the recommended procedures. Pinacyanole is a dye belonging to the cyanine group. Some of the other cyanine dyes are Orthochrome T, Dicyanine A, Neocyanine, Quinoline blue, and Kryptocyanine. Certain of these cyanine dyes such as quinoline blue have been in use for almost a hundred years. Pinacyanole was first recommended by Proeschner² in 1933 as a histologic stain for frozen sections. The dye has been adapted by me for use in the study of vaginal smear cytology. In this study it was found that trichomonads are selectively stained by this dye. In the stain for simple vaginal cytology studies, vaginal smears were covered with a few drops of 0.5 per cent alcoholic solution of pinacyanole, a few drops of water were added for 10 seconds and the

slide then washed. The epithelia stained purple, the trichomonads pink with a crimson nucleus. However, the flagella, axostyle and undulating membrane were not visible. By modifying the procedure to that described under *Technic*, all the features of the trichomonad were demonstrated.

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IS CHOLESTEROL METABOLISM GETTING ENOUGH ATTENTION IN EARLY CORONARY DISEASE?

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In the past 15 years there has been a good deal of research and discussion on the subject of cholesterol in connection with atherosoma of the coronaries. Hermann¹ points out that the facts concerning the metabolism and transportation of cholesterol have been clarified greatly and that evidence has been developed that hypercholesterolemia contributes to disease of the coronary intima. Also that clinicians report an increasing number of patients who have suffered attacks of coronary occlusion who show hypercholesterolemia. Hermann¹ reminds the reader that endogenous cholesterol is conjugated in the liver but most of it is exogenous and ingested in animal foods; that cholesterol-containing foods are prepared in nature for young animals and are handled with difficulty by the adult animal body.

Bortz² named disturbance of cholesterol metabolism as initiating atherosclerosis which he called the forerunner of arteriosclerosis. He quoted Dock³ that coronary

atheromatosis involves only the larger epicardial branches of the coronary arteries; that the principal cause of death in American men during their period of greatest productivity is this peculiar susceptibility of a comparatively minute portion of the coronary intima; that one of the most important factors in atherosclerosis is the level of blood cholesterol, and that high blood pressure is the other.

Thannhauser⁴ in his report last fall of his endowed study of serum lipids records that atheroma formation in the intima and endocardium is characteristic of high serum cholesterol with normal serum value for neutral fats. He said the lowest serum cholesterol values are observed in patients with acute yellow atrophy of the liver, which supports the theory that the liver plays an important part in the formation of cholesterol in the mature organism. In a letter he states that restriction of animal fats may lower the cholesterol level and may arrest atheroma development.

Quoting Hermann¹ again: "Atheromatous disease, usually localized in the coronary arteries, is the most common single, basic pathologic process found in men who have died suddenly and prematurely. The atheromatous plaque has usually enlarged to the point of occluding the lumen, rupturing the intima and precipitating thrombus formation with consequent myocardial infarction. Atheromatosis is too complicated a process to have a single cause, yet hypercholesterolemia seems to be the significant factor. Leary felt that heavily cholesterolized wandering histiocytes left the liver in the blood and demonstrated, in experimental studies, their penetration of the intima of small arteries and he thus visualized the development of cholesterol-containing plaques in that location. The plaques slowly increase in size and the fatty depositions undergo degenerative changes, fibrosis and

calcification."

Hermann makes routine use of low cholesterol diets. He states that these are not being stressed in medical schools; that cholesterol is not getting much attention from the profession in this connection; that the subject is considered by many as one that will pass and grants that cholesterol must be acknowledged not to be the whole story. It cannot be played down that psychic factors such as emotional tension and drive, also overweight, heredity and smoking have their weighty parts in this and that instance. Inheritance of a thick coronary intima is given especial importance. The accident of being a man between 45 and 65, rather than a woman, enhances the hazard. The male has the thicker coronary intima as a soil for lipoid infiltration.

The lining of the coronaries is thicker than in other arteries of the same size. By reason of its location it is subjected to the trauma of the heart's contractions. The wax-like lipoid, cholesterol, seeps in forming irritating small accumulations from which scar-like spots and gradual narrowing of the vessel develop. At a later time a roughened fragment may loosen and a thrombus form there. If the atheroma does not do this the accumulations and narrowing may proceed until the myocardial oxygen and glycogen are seriously limited.

Dock³ points out that coronary disease is rare in the Chinese whose average blood cholesterol is only about half as high as that of most Americans. He says that the coronary death rate was unexpectedly high in American training camps where eggs, milk and fatty foods were provided far above the average peacetime intake, while British troops fared considerably better in this respect due to their being given more tea, bread and beef rather than milk, eggs and ice cream.

Dock⁵ refers to the fall in blood cholesterol reported by Kempner⁶ in 79 patients

on a rice diet, the average being from 243 to 186 mg. He cited the consistent rise in blood cholesterol in normal women fed four egg yolks a day as observed by Okey et al⁷. The same writer says that dogs and rabbits develop atheromata when the blood cholesterol is kept above 250 and that clinical observation and experimental pathology have shown how atherosclerosis can be prevented, or even reversed, by dietary restriction alone. According to Page of the Cleveland Clinic, enough is known to make it prudent for those who have coronary disease and high blood pressure to eat limited amounts of foods rich in cholesterol.

J. Lerman and Paul D. White⁸ declare that atheromas occur in fatal form precociously in those with high blood cholesterol (i.e. in xanthomatosis and diabetes mellitus) and that high blood cholesterol are the rule in those who have coronary disease before 50.

The most widely accepted maximum normal serum cholesterol level is 185 mg. per 100 cc. It is a fortunate fact that it is a comparatively simple procedure to adopt a diet low in cholesterol. The offending animal lipoids are largely avoided by the omission of egg yolk, milk fat and meat fat. The lack of these can be considerably compensated by substituting skimmed milk, buttermilk, dairy butter substitutes, vegetable oils for cooking and indulgence in the oil containing nuts. Lean meats are a dietetic aid in that they help in cholesterol metabolism.

The management is considerably simpler than that of diabetes. In addition to dietary restrictions, there are remedial measures for hypercholesterolemia that are of definite value and available to any patient. It is for the clinician to determine what of these are best applicable to the case in hand. Thyroid extract is to be considered because it is well known that blood cholesterol is high in hypothyroidism and low in hyperthyroidism. Hypercholesterolemia in dia-

TABLE I.
LOW CHOLESTEROL DIET CHART

OMIT	SUBSTITUTE
Egg Yolk, Bacon	Salmon Croquettes, Shad Roe, Cod Fish Cakes, Lean Chops, Waffles
Whole Milk	Skim Milk, Buttermilk, Tea, Coffee, etc.
Cream, Cream Cheese	Skim Milk, Cottage Cheese
Dairy Butter	Margarine
Lard in Cooking	Vegetable Oils
Fats of Animals, Fish and Fowls	Lean Parts
Gravies of Meats of Animals and Fowls	Margarine for use on Rice, Grits, etc.
Soups Containing Animal Fats	Oil Dressings and Nuts in the diet help bring up the total fats

betes has been subsequently reduced by insulin. The iodides are recommended as of definite value. Choline and methionine are lately available in acceptable form. Choline and methionine are established lipotropic agents. The one is generated by the liver, the other is an amino acid. Leary wrote in the New England Medical Journal 15 years ago on the value of alcohol in relation to cholesterol. He said, "When I have a body of a man past 65 on the morgue table and find his aorta as smooth as a baby's skin I know he had been a long-standing user of alcohol". He said that coronary disease and angina occur in significantly few heavy drinkers.

Every day case histories and the electrocardiogram are revealing cases of early

TABLE 2
SOME CHOLESTEROL REDUCTIONS BY DIET AND MEDICATION AT HOME
Milligrams of cholesterol per 100 cc. of serum

Case	Before treatment	Later estimation	Interval
1	a. 417 b. 210	146 170	5 weeks 11 weeks
2	323	208	13 weeks
3	253	177	12 weeks
4	291	226	16 weeks
5	211	185	10 weeks
6	251	206	12 weeks
7	206	179	12 weeks
8	223	194	16 weeks

coronary disease. Do not the well known facts of atherosclerosis warrant almost routine cholesterol estimations and appropriate therapy when they are found high?

Summary

1. We have collected and presented authoritative expressions to the effect that cholesterol infiltration occurs in the coronary arteries to produce coronary disease.

2. We have cited reduction by dietetic means of serum cholesterol levels to those considered normal.

3. We have offered a simple diet guide for doing this.

4. While an internist or a cardiologist here and there is applying the tests and the treatment with mounting satisfaction, we believe that cholesterol metabolism is not getting wide enough attention in medicine's number one problem.

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THE FALLACY OF THE BASAL METABOLIC RATE

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The minimum heat production of the body, measured directly or indirectly, is the *basal metabolism*; sometimes also called standard metabolism. It is usually determined by measuring the oxygen consumption or the carbon dioxide production of the patient under standard conditions, such as rest the previous night, no food for 10 hours prior to the test, complete mental and physical rest of the patient, with corrections for temperature and barometric pressure. The most commonly employed method is by

measuring the oxygen consumption per minute over a given period, usually six or eight minutes. By the use of simple tables the oxygen consumption is converted to heat production per square meter of body surface per hour. The per cent of this heat production of the standard normal heat production is called the basal metabolism rate.

The basal metabolism is remarkably constant for normal individuals of the same height, weight, sex, and age. The machines employed are the Benedict-Roth, Jones, Sanborn, McKesson, and Krogh.

The basal metabolism rate is especially valuable in confirming the diagnosis of hyper- and hypothyroidism. Repeated tests show changes under treatment. It is valuable in cretinism and myxedema as a guide in regulating treatment, although several observers rely just as much on the pulse rate. It is an aid in uncovering masked hyperthyroidism, especially when complicated by heart disease.

Means has stated that "like all other laboratory tests it should be interpreted only with due regard to all other clinical and laboratory findings, and with due regard for its limitations and pitfalls."

There are many possibilities of error in making this test. A series of tests is of much greater value than a single test. It appears probable that determination of the serum precipitable iodine will, because of greater accuracy, supplant basal metabolism studies in patients suffering from disturbances of the thyroid gland.

The BMR was the first diagnostic test of endocrine function to be utilized generally. As the thyroid gland was at that time supposed to be the most important gland in the body, the BMR became associated with the per cent of thyroid function. We now know that a long list of conditions including disorders of the pituitary and adrenals can affect the BMR.

<i>Alterations in the BMR in Disease</i>	
INCREASED BMR	DECREASED BMR
Hyperthyroidism	Myxedema
Toxic adenomas of thyroid gland	Cretinism
Malignancy of thyroid gland	Thyroiditis (Riedel's struma)
Polycythemia	Nephrosis
Severe anemia	Hypopituitarism
Leukemia	Simmond's disease
Diabetes insipidus	Addison's disease
Advanced cardiac decompensation	Undernutrition (starvation, anorexia nervosa)
Drug poisoning	Shock
a. Thyroid	
b. Dinitrophenol	
Diabetic pseudodwarfism	
Febrile disorders	
Hyperpituitarism (anterior lobe)	

Other conditions may affect the BMR. Since American tables are based upon American patients, the question of race does not materially affect most studies in this country. Climate has little effect; the greatest differences between hot and cold being 12 per cent. Occupation has little effect, being 5 per cent higher in manual laborers and 6 per cent lower in sedentary workers. Diet has no effect; neither did vegetarians show variation from meat eaters. Pregnancy does increase the BMR in 80 per cent of the cases with increases up to 20 per cent. Caffeine causes an increase of 3-10 per cent. Benzedrine and cigarette smoking raise the BMR. Recent unpublished experimental work by me on a well controlled series of patients has clearly shown that methedrine does not apparently affect the BMR in the treatment of obesity. Sedatives tend to lower the rate. Rowe has found a BMR of minus 22 per cent in patients with normal thyroids. However, the old impression seems to persist that the BMR is strictly a thyroid test.

Starr and others have recently stated that the more than 5000 BMR machines in this country should be dumped into the Atlantic Ocean because their importance has been so grossly overemphasized. This is an extreme view but illustrates the fact that too many physicians think of the BMR as a

specific gland test. When one considers that this is merely a measure of oxidation, then one may evaluate what emphasis to place upon it. Occasionally a doctor is found who mistakenly thinks a BMR is all there is to an endocrine diagnosis.

Actually, the BMR is fairly definite in its meaning at high and low levels. There are exceptions: minus 30 per cent in asthenia and malnutrition, plus 25 per cent in simple anxiety. It has been compared in value to the observation of height. If a person is tall it is evident; if short, equally so. If the case is definite enough to affect the BMR extremely, one can diagnose it also by inspection, such as in myxedema and hyperthyroidism. It is in the intermediate zone that most cases are difficult to diagnose. The BMR, in such cases, is, in my opinion, of no more value than the pulse rate. Yet it should always be taken since when it agrees with the other findings it strengthens them. If it disagrees, it should be thrown out.

The BMR should be correlated with a careful history, physical examination, blood count, urinalysis; blood chemistry, especially the cholesterol, and x-ray of bone age in children, and for calcification in adults. The dentition should be closely observed. The I.Q. is helpful. If possible in adults the serum iodines should be repeatedly done. In the majority of cases it still takes some gray matter to make a correct diagnosis.

The usual method is fasting the patient for 10 hours before the test and avoiding all stimulants, especially smoking. When a patient is in the habit of smoking 40 cigarettes a day and drinking 5-6 cups of coffee, what would be the effect upon his BMR of withdrawal of these stimulants? It has been stated by Starr that eating the average breakfast of orange juice, toast, egg, and coffee does not raise the BMR over

4 per cent. One might speculate whether our arbitrary methods of preparing for the BMR are not too artificial. Why not take the BMR under conditions usual for that patient? Such a procedure would let him awake and eat as usual, and then take the BMR.

It appears that while the BMR is of some value and should be used, it is far from being specific in determining thyroid function except in extreme cases. Thus we are forced to admit the lack of a specific thyroid function test for the great majority of patients who have no extreme disturbances but who are definitely affected in thyroid secretion. Such a test has not yet been evolved.

Several types of patients may serve to illustrate the fallacy of using the BMR as a single diagnostic procedure.

The influence of emotion on the BMR was reported recently by an investigator (Starr) who had a BMR of minus 4 per cent and then immediately following had a second BMR during which he imagined the lamp fixture on the ceiling was about to fall on him and he must move at once. His second BMR was plus 19 per cent. (Hoskins reported a similar result. The following are examples:

Group 1. (Menopausal type). F., 44 years of age, nervous, apprehensive, depressed, emotionally unstable, menopause. BMR varied from minus 20 per cent one day to plus 15 per cent the next day. Here the thyroid was normal by all other tests. Her condition was judged to be due to fluctuating gonadal function causing an imbalance between the thyroid and estrin functions. Relieved by substitution therapy (estrin).

Group 2. (Blood Disease). Leukemia. BMR plus 18 per cent. RBC 3,650,000. Hemoglobin 70 per cent. WBC 180,000. Weakness. Fever. Loss of weight. Diagnosis apparent.

Group 3. (Hyperpituitary anterior lobe). Acromegaly. BMR often elevated to 20 per cent. Enlarged thyroid. Exophthalmos. X-ray evidence of sellar tumor. Diagnosis evident.

Group 4. (False high BMR). M. 27 years old. Smoker. Nervous. Easily tired. Hard worker. Cholesterol 250 mg. BMR plus 27 per cent. Pulse rate 86. Blood not anemic. Urine clear. In such cases the BMR is not as reliable as the cholesterol determination and should be disregarded.

Summary

The BMR is a test of heat production only.

It is not a specific thyroid function test. It must be considered with all other tests and observations.

At least 20 different conditions affect the BMR.

When the BMR disagrees with the other findings, it should be disregarded.

Conclusions

The fallacy of the BMR is that it is too often regarded as an absolute test of thyroid function, whereas it is of value only in the very high and very low readings. It should be done but its value should be carefully estimated as compared with the blood cholesterol, bone age, blood iodine, history and physical. A further fallacy is that the usual procedure of taking the BMR in the physician's office does not insure absolute rest of the patient and the test is then grossly inaccurate.

At the present time we have no simple single test of thyroid function that is reliable for all grades of thyroid disorders, and the diagnosis still requires clinical judgment.

The limited value of the BMR should be generally recognized.

ROCKY MOUNTAIN SPOTTED FEVER

H. M. REYNOLDS, M.D.

Cairo

and

HELEN W. BELLHOUSE, M.D.

Thomasville

It is not with the idea of making any startling new contribution to medical science that we report this case of Rocky Mountain spotted fever. Rather, since Rocky Mountain spotted fever is increasingly common, we are presenting it as an experience to encourage early recognition of a starkly, dramatic, clinical picture. Scientific work of the past year has brought therapeutic

management of rickettsial diseases to a practical quantitative level. There is now considerable assurance of satisfactory results.

Among the more recent scientific contributions to the literature are those of Peterson and associates¹ and Ravenel^{2,3}. Ravenel has admirably discussed the detailed therapy of five individual cases. He emphasizes that detailed therapy, properly administered and controlled, can produce as he says "triumphant" therapeutic results in an otherwise highly fatal disease.

The patient we here report is a child. However, "this experience" should be a matter of general interest as it is well recognized that in all regions the disease is much more fatal in adults than in children⁴.

Before completely adequate therapy can be instituted in any illness, especially where specific drugs are indicated or contraindicated, one must first recognize the potential diagnosis. Recent advances in the use of para-aminobenzoic acid in the treatment of Rocky Mountain spotted fever or tick typhus, murine or rat typhus, and other rickettsial diseases, make early recognition more imperative for good results. It is felt that if therapy is started after the first week sufficient damage to the vascular system has often been accomplished by rickettsiae to cause death of a patient even though no further multiplication of the rickettsiae takes place⁵.

The sulfonamides and para-aminobenzoic acid are antagonistic in their action which further increases the need for early recognition. The diseases most commonly confused with Rocky Mountain spotted fever, early in illness, according to the literature, are murine typhus, meningococcemia, rheumatic fever, and, as in our case, rarely measles. In both murine typhus and Rocky Mountain spotted fever para-aminobenzoic acid is the drug indicated. Clinical astuteness and negative laboratory findings

clarify the picture.

History is not always reliable, as in our case where, despite diligent questioning throughout the illness, the family was not reminded of the tick bite until ten days after death. There is, in most areas, a seasonal incidence which may give a clue.

The American dog tick, *Dermacentor variabilis* (Say), the Rocky Mountain wood tick, *Dermacentor andersoni* (Stiles), and others have been implicated in the transmission of Rocky Mountain spotted fever. *D. variabilis* is recognized as the most important vector for this disease in the eastern half of the United States⁹. Peterson¹ reports that the dog tick was implicated in the histories of three patients. Two of these had crushed the ticks with their fingernails.

TABLE 1
Rocky Mountain Spotted Fever (7)

Tabulation of the total reported cases and deaths in Georgia, 1943-47.

	Cases	Deaths
1943	4	2
1944	12	4
1945	20	5
1946	34	2
1947	22	4

(The '47 figures remain provisional for six (6) months, since deaths may be registered at that late date.)

We feel that as physicians become more familiar with the clinical picture, the reported morbidity rate will rise.

The case to be presented, briefly of necessity, will, we hope, illustrate some of the points made above.

Case Report

P. C., white female, aged 5 years, was admitted to Archbold Hospital, Thomasville, Georgia, June 8, 1947. Four histories were obtained by various individuals, each at variance with one another in a good many ways, but concurring in the following facts: (1) numerous flea bites one month previous; (2) high fever, headache, and somnolence for one week, preceded by some malaise; (3) prodromal rash thought to be due to measles five days previously; (4) petechial rash, increasing in severity, and puffy eyes of three days duration; (5) generalized aching for two days. No history of tick bite could be obtained despite assiduous questioning, until ten days after death, twenty-two days after admission. The family finally remembered a tick had been removed from the child May 11, Mothers' Day, almost one month previous to admission to the hospital and three weeks previous to the onset of illness.

The varied conscientious efforts to get the story of illness emphasize the sihtoric difficulties and unreliability.

Physical examination and laboratory findings showed:

Acutely ill child; semicomatose, and in varying state of delirium; temperature 104.8-R; edema of eyelids, and general puffiness; pain on motion of arms and legs, and of neck, which showed some rigidity; joints of upper and lower extremities swollen. The respiratory rate was increased, and scattered coarse rales were heard throughout both lungs. The liver and spleen were both enlarged. Finally, and most important, there was a definite petechial rash over the entire body which did not fade on pressure. Even the mucous membranes were involved.

The clinical laboratory reported: hemoglobin 82 per cent, a relative leukopenia (considering the high fever, and the obvious severity of illness) of 9,750, with 80 per cent polymorphonuclears, and 20 per cent lymphocytes. Urinalysis revealed a trace of albumin and occasional red and white cells. Examination of spinal fluid showed four mononuclear cells; a total protein of 41 mg. per cent; and sugar of 64 mg. per cent. Kahn blood test was negative. Repeated blood cultures were negative.

All agglutinations were negative on admission to the hospital. However, through the courtesy of the United States Public Health Service the facilities of their laboratory in Montgomery, Alabama, were made available. Their antigens were probably more sensitive, as the initial blood sample, drawn at least a week after onset, reported negative locally, was reported as positive 1:320 for OX-19. Samples drawn June 11, 1947, two days later, before the first report was returned, showed 1:1280. Not until the reports were returned from two separate Public Health laboratories on blood drawn at necropsy, June 20, 1947, did we have absolute confirmation of Rocky Mountain Spotted Fever, a specific titer of 1:64, from only one of these laboratories. These are presented in detail so you may further realize the difficulties involved if one relies on the laboratory for specific diagnosis early.

In the meantime, the administration of para-aminobenzoic acid had been started within 24 hours after admission. Although six of us did not entirely recognize the Rocky Mountain Spotted Fever syndrome, it was felt that the child should be given the benefit of the drug, based solely on the clinical diagnosis of rickettsial infection, probably severe murine typhus.

In the light of subsequent developments, and the one paper reporting a series of cases in children published in the weekly J. A. M. A.² our dosage was a little low and the doses at too great an interval (every 4 hours). At that time no para-aminobenzoic level determinations were immediately available. The child cooperated quite well, however, for two days. Then, not having available the more recently developed sodium para-aminobenzoic acid which can, in case of dire necessity, be given intramuscularly, we struggled with gavage; and when that promptly produced epistaxis the drug was given by retention enema. Supportive therapy in the form of several small transfusions, vitamins K, B-complex, and hesperidine C was used. Penicillin was given when definite pneumonia intervened, and digitalis was resorted to for cardiac failure.

In spite of all efforts the child expired 12 days after admission, at least 19 days after onset of the illness, and more than one month after known exposure to the fatal tick.

Necropsy findings, grossly, were not remarkable except for the extensive hemorrhagic areas externally and internally and the pneumonic process. Through the courtesy of the National Institute of Health microscopic study of the tissues was reported. Characteristic monocytic infiltrations were found throughout the organs and tissues of the entire body. The pneumonic areas and the myocardium showed a monocytic type of reaction. Multiple areas of hemorrhage were found in the lungs, small intestines, and adrenals. Vascular changes were prominent in sections of the various portions of the brain also. The pathologic diagnosis returned was that of (1) Rocky Mountain spotted fever, and (2) secondary subacute bronchopneumonia.

TABLE 2
P. C. Serologic Reports

Date Bled	Weil-Felix OX-19	Weil-Felix OX-2	Typhus/C-F 2 u.c.	Typhus/C-F 1 1/3 u.c.	RMSF/C-F	Q/C-F	Location of Lab.
June 9, 1947	1/320	Neg.		Neg.	Neg.	Neg.	Montgomery
June 11, 1947	1/1280	1/40		Neg.	Neg.	Neg.	Montgomery
June 17, 1947	1/2560	Neg.		Neg.	Neg.	Neg.	Montgomery
Postmortem							
June 20, 1947	1/2560	Neg.	Neg.	Neg.	Neg.	Neg.	Montgomery
June 20, 1947			Neg.		1/64	Neg.	N. I. H.

Conclusion

In retrospect, now that we are familiar with the syndrome of headache, fever, somnolence, plus or minus delirium; and chills, which may or may not occur; with subsequent development of a petechial rash, general puffiness, enlargement of the spleen, not always found; and relative leukopenia, in absence of complications, this patient obviously had a rickettsial infection. In view of the extensive, and, in this case, typical distribution of the rash and in view of the extreme severity of illness, Rocky Mountain spotted fever, a disease which is becoming increasingly frequent, should have been clinically diagnosed earlier although it was confirmed only at autopsy by serologic tests and histologic changes.

Physical examination in this case was more revealing and reliable than history or laboratory for diagnosis. Severe murine typhus was the predominant impression of the six consultants who saw this patient in the first week.

The relative negativity of essential laboratory reports is the only initial laboratory contribution. However, there can be a slight change in the spinal fluid findings. An extremely high and rapidly rising Weil-Felix titer is usually the first clinical laboratory finding in rickettsial infections. Still that rarely occurs in the first week. The first serologic report, specifically positive for Rocky Mountain Spotted fever, was obtained on our patient from blood withdrawn at necropsy, 12 days after admission.

Practically speaking, familiarity with

the syndrome discussed above should spur the physician to obtain at least a hemoglobin, white count and differential, if there is any question as to the etiology of an acute illness. This in itself would not require hospitalization. However, if the findings are at all suggestive of rickettsial infection the patients should be hospitalized immediately for the primary purpose of quantitative control of therapy, with frequently repeated para-aminobenzoic acid blood level determinations⁷ which cannot be done at the home. Fluid balance, protein requirements and acid-base balance can be closely followed only in the hospital. These factors are probably equal in importance to specific drug therapy.

In addition to the originally recognized vector, *D. andersoni*, *D. variabilis*, the dog tick has also been implicated. We believe this fact should be stressed because of the widespread distribution of this dog tick in the Southeast.

Finally, this is not a disease of children alone. There is a higher incidence of complications, sequelae and fatalities among older patients because cardiovascular susceptibility increases with age.

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NASAL RECONSTRUCTION

Report of Case

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Complete nasal reconstruction may be accomplished by one of several methods. The Indian method requires a large forehead flap, while the Italian method consists of a flap from the medial aspect of the

upper arm. Other methods make use of a neck or chest flap. However, the tissue from another part of the body never completely matches in color and texture the skin of the face. Therefore, the forehead is still the site of choice from which to obtain skin to reconstruct the nose. Needless to say, the defect must be skin grafted and the resultant scar is very noticeable.

In cases of incomplete absence of the nose there are also a variety of methods of



Figure 1. Pre-operative appearance of partial nasal avulsion.

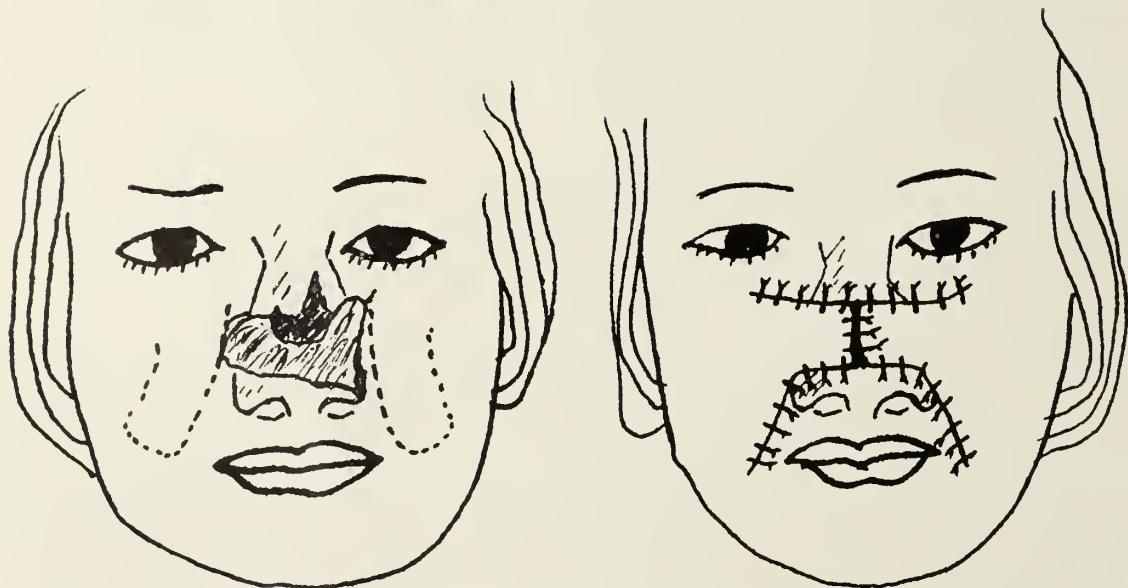


Diagram 1. Method of repair. Left shows the pre-operative appearance of the avulsed area and the outline of the nasolabial flaps. Right shows the postoperative appearance of the flaps rotated and sutured in place, filling the defect.



Figure 2. Appearance immediately after repair.



Figure 3. Six weeks after repair. Note the flat appearance of the nose.



Figure 4. Postoperative appearance after insertion of preserved cartilage transplant to the nasal bridge and tip. Further thinning of the nasal base is indicated.

reconstruction. If a large part of the nose is missing, as in the following case, it is a temptation to obtain tissue from the forehead, the neck or the arm. However, the following case illustrates what may be accomplished by using the adjacent tissue of the face for the repair. This results in a good color match of the skin, a minimum of scarring, and a minimum of discomfort to the patient.

REPORT OF CASE

The patient, M. M., is a 25-year-old Negro woman who on Dec. 22, 1947 was shot by a shotgun, the barrel being only a few inches from her face. She was given tetanus antitoxin, penicillin intramuscularly every three hours, and constant wet dressings of penicillin solution (500 U. per c.c.) to her wound.

I first saw her one week after the accident and at



that time the physical examination was essentially normal except for her face. There had been an avulsion of the middle one-half of the nose flush with the cheeks, leaving about one-half of the upper bony framework and the lower alar rim. The septum, upper lateral cartilages, lower part of the nasal bones, and alar cartilages were absent in the middle one-half of the nose (Figure 1). The airway was adequate bilaterally and there were clean granulations throughout. There was only a small opening through the mucosa of the right nostril, the charge apparently stripping the tissue clear of the mucous membrane of her flat negroid nose.

Laboratory findings were normal except for an anemia of 3,630,000 with 70 per cent hemoglobin.

Operation 1: On Dec. 28, 1947, under 2 per cent novocain local anesthesia the face and the wound were cleansed with soap and water, alcohol, and ether. The skin edges were trimmed. Then, after proper measurements were made, bilateral nasolabial flaps were raised. They were based proximally and included the skin and fat down to the muscle of the cheeks. The ends of the flaps were then sewed to each other in the midline and sewed to the edges of the wound with interrupted black silk sutures. After undermining the skin edges the nasolabial wounds were closed by subcutaneous sutures of 3-0 plain catgut, a continuous subcuticular suture of 6-0 nylon, and few interrupted skin sutures of double twist nylon. Figure 2 shows the wound immediately after the repair.

Postoperatively, penicillin was continued for four days. Healing was satisfactory, and the drain and one-half of the interrupted sutures were removed on the fourth day. The remainder of the interrupted sutures were removed on the eighth day, and the subcuticular nylon sutures were removed on the thirteenth day.

On June 2, 1948, I again saw the patient and her appearance at that time is shown in Figure 3.

Operation 2: On June 2, 1948 a small midcolumellar incision was made and a preserved cartilage implant was inserted in the bridge and another as a post to support the tip. A small ellipse of skin and fat was excised at the base of each nasolabial flap to lessen the fullness at the base of the nose.

Figure 4 shows the present appearance of the nose. It has been suggested to the patient that the thickness across the base of the nose can be further reduced by excising an ellipse of skin and fat from either side.

This case is reported as an example of the use of adjacent facial tissue to repair nasal loss. It is preferable, in my opinion, because of its simplicity, the minimum discomfort to the patient, and the satisfactory cosmetic result.

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814 Doctors Building.

TUBERCULOSIS

In uncovering tuberculosis in our schools, it is generally agreed that the tuberculin test is a superior case-finding method in the lower grades. The incidence of tuberculosis in younger children is very small, and (the cases) are mostly acute forms of the disease which would not be discovered by an x-ray survey. A tuberculin test points out the existence of an infection which the x-ray alone cannot show, at least in most of the cases. Searching the homes and investigating other close contacts of the positive reactors to find the source of infection is quite successful. Dan Morse, M.D., NTA Bull., December, 1948.

GOVERNMENT MEDICINE IN NEW ZEALAND—ITS SOCIAL, ECONOMICAL, AND POLITICAL IMPLICATIONS

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Perhaps before dealing with the main subject of my address it may be pertinent to give you a thumbnail sketch of New Zealand—it will give some background and enable you to appreciate more fully what has to follow, a clearer picture from which to evaluate the economic and medical features.

The Dominion of New Zealand consists of an isolated group of islands, two of which are comparatively large. This group is situated approximately 1200 miles east of Australia, 6000 miles west of South America and 1600 miles north of the Antarctic Continent. The principal islands lie approximately between the parallels of 31 degrees and 48 degrees south latitude and the meridians of 166 degrees to 179 degrees east longitude. The total area including annexed islands is 103,935 square miles.

The dominion has a climate of marine type—not excessively hot in the summer and not unpleasantly cold in the winter. Most parts of the country enjoy ample rainfall and a liberal share of sunshine. The mean daily temperature (Fahrenheit) is round about 44 to 64 degrees. This is an average taken over many years.

The population —	1,646,000	Whites
	98,000	Maori
	85,000	Island
<hr/>		
		Territories
	1,829,000	

(Cooks Nine Island, Kermadie, Tokelan, Portion of Western Samoa and Cambell Island)

Females	821,000	Males	783,000
Maoris	48,500		50,200

New Zealand has been described by some people as the socialistic laboratory of the world—this may or may not be true. At least one other country in the world—a much larger one and with a greater population claims this distinction. The methods adopted in the implementation of the socialist regime may be different, but the principle underlying that order of life is the same.

The socialization of medicine in New Zealand was completed in 1938 and became operative on April 1, 1939.

The principal objects of the social security legislation are as follows:

1. To substitute for the system of noncontributory civil pensions—for example old age pensions, widows and other pensions, a system of monetary benefits on a contributory basis.

2. The inauguration of a system of medical and hospital benefits and other related benefits, e.g., pharmaceutical, dental, masseur, etc.

It is with section No. 2 that I have to deal with today, but section No. 1 requires some elaboration so that you may judge whether or not the latter was desirable or necessary.

The system under which we operated prior to 1938 was in effect much the same as the one at present existing in America today. Provision was made for the aged, infirm and sick to secure state assistance in the form of pensions and free hospital treatment where necessary. This system was augmented by means of benefit lodges, insurance companies and other private means of providing self-security in time of need. Such private schemes became inoperable after the introduction of "Social Security" as sponsored by the government and in effect became impracticable and have almost gone out of existence.

The introduction of the government scheme compelled everybody in New Zealand to come within its scope and the payment for this stupendous undertaking was provided for by means of direct taxation.

The net income of everybody in New Zealand is taxed 23c (one shilling being approximately 20 cents). This tax is calculated on the first dollar of income and no exemptions are allowed. You will note that 5½c out of every dollar of income or salary is collected as a special tax. This amount only partly covers the cost of administration of Social Security. In addition the fund must be subsidized from the Consolidated Fund of Government.

The taxation Revenue of General Government fund in 1945-46 was \$460,000,000, an amount equalling \$268 per head of the population. In that same year the expenditure on Social Security alone was \$104,000,000—equalling a sum of \$60 per head of population. Nearly one-fourth of the government income was expended on the Social Security program.

Gentlemen, I present these figures to you so you may acquire a right perspective of the cost to each individual in our country and dispose of any ideas that the benefits of socialization of medicine and related professions are free to any fellow citizen. Can any economic system stand up to such an overload of taxation?

Let us now consider the administration of this socialistic scheme. Medical, dental and pharmaceutical practices are operated much in the same way as in this country. Similarly does the hospital resemble that adopted here.

We have our state-controlled and privately-owned institutions to which any person is entitled to be admitted, if there is available accommodation. Under the Amended Social Security Act, which came into operation on November 1, 1941 "every person is entitled, without cost to

himself (note without cost) to such medical attention (with certain specified exceptions) as is ordinarily given by medical practitioners in the course of general practice. The medical practitioner is entitled to receive the sum of \$1.50 for every time he renders any of the prescribed services. If the practitioner is called upon to provide, in response to an urgent request, services on a Sunday or between the hours of 9:00 P. M. and 7:00 A. M. the appropriate fee is increased to \$2.50. Mileage fees are also payable in certain circumstances. Any charges over and above the fees quoted are payable by the patient."

Gentlemen, that is a copy of the section of the act.

Pharmaceutical benefits are provided "free of any cost to the patient."

State hospital benefits are provided free of cost to the patient.

Private hospital charges are subsidized up to \$2.00 per day during period of hospitalization.

Maternity benefits free in state hospitals and subsidized in private hospitals.

Private practitioners' fees are in accordance with a prescribed scale and are to be regarded as full settlement of his claim. In case of specialists, additional fees over basic allowances must be recovered from the patient.

Besides these benefits we have Monetary Benefits listed under child benefits (\$2.00 per week per child under 18 years).

Superannuation benefit, \$10.00 to a maximum of \$416.00 per annum. We have also Old Age, Widows, Orphans, Invalid, Minors, Maori War, Unemployment, Sickness, emergency, dental, laboratory, nursing, massage, x-ray diagnostic service in addition.

The chiropractors are now making representation for their inclusion. Additional to these we have our war pension, economic pensions, war veterans' allowance, emergency reserve corps pension and Mercantile Marine pensions. Truly a scheme to care for New Zealanders from the womb to the tomb. Let us now consider the practical application of the foregoing with regard to the medical practitioner. Please bear in mind the quoted phrase "without cost to himself." A patient visits his doctor. At the conclusion of his consultation he signs a form. That form is signed by the doctor and directed to the health department for whatever sum involved, a minimum of \$1.50 per visit.

The form is a simple one. The doctors name appears on it, the number of visits the patient has made and the total cost. The claim is then signed by the doctor and paid without query or question.

The patient is free to visit as many doctors as he wishes per day, per week or per year "without cost" to himself at the time of the visit. He may obtain from each doctor a prescription

which he may have filled without cost to himself. He may be signed over to any one of the subsidiary benefits for a pension, admission to a hospital, massage, x-ray and so on. He may indulge in this peregrinating pastime among the doctors till his heart is content or until he finally interviews a doctor who will do as he bids, give him the medicine he desires and put him in the institution of his choice and place him on the advantageous "pension list."

This he may do without cost to himself. The one and only condition is that he be prepared to wait in a queue of people on similar business bent. He may even be ill and in need of urgent attention, but he will of necessity have to join the endless chain of the sick and the imaginary sick. All of this he is legally allowed to do and all of these charges he is permitted to incur by the law of the land. The Social Security Amendment Act, November 1941. I have presented you with facts only as published in the Abstract of Statistics of 1941.

The interpretation of the act is the one in force and duly exercised. The number of indoor patients treated in public hospitals in 1945 was 165,000. We may assume that another 40,000 were treated in private institutions, making a grand total of 206,000 or 12½ per cent of our total population under hospital care, a startling figure for a country the size of New Zealand. Based on this figure America would have to provide accommodation for 17,000,000 as a permanent hospital population.

Nobody will deny the sick of any country the right to adequate treatment, but the cost to the country is tremendous, not because the money is being spent on the individual but because of the immense cost of administration and the abuse of the system under a Socialist Government. Some of these abuses I will refer to as I go along.

The questions we ask ourselves in New Zealand are:

1. Are we getting our money's worth?
2. Has the system improved medical service to the people?
3. Has the system reduced the incidence of disease?

To question one I reply, most certainly not. A great part of the money we are taxed is absorbed in the cost of administration—in the payment of a large body of civil servants and for the payment of doctors for visits that were never necessary and for prescriptions given them.

To question two, I again say no. The medical profession has so many consultations that it is impossible for them to devote the necessary time to each patient, evaluate their symptoms and give a careful and considered diagnosis. I do not say this in any derogative way regarding the members of the profession. It is not humanly

possible. Too many are consulting their physician unnecessarily, taking up his time which would be better given to people really needing his attention.

Regarding question three, the figures speak for themselves. A very small amount of money is voted for research work. The physicians have little or no time for reading and investigation, and little incentive to study abroad.

The system as operated in New Zealand allowed itself of such abuse that it has almost become a farce and I have listed a number of questions that I feel are in the minds of you present.

1. Are medical services available at no cost to the patient? My answer. Of course not, the average cost to each individual is \$60 per annum. To many it is not this high, but to many more a great deal higher.
2. Has it raised the status of medical profession? My answer. No. It has lowered their prestige due to known abuses that may be practiced by unscrupulous members.
3. Is it possible for unscrupulous members to be dishonest? My answer. Blatantly so. A form could be filled in for more visits than the patient paid to the doctors, a signature could be forged, forms could be filled in by friends of the doctor when no visits were made.
4. Can the pharmaceutical benefits be made available wrongfully? My answer. Yes, as of the right any prescription signed by a B.M.A. member must be filled by the chemist without questions.
5. Is there any competent check made of medical claims made? My answer. No. They are checked by departmental clerks whose duty in the main is to compute the amount for direction to the Treasury for a check to be paid out to the doctor each month.
6. Is socialized medicine less cost to the patient than other schemes? My answer. The average cost per head is \$60.00, but many people pay much more. In a very small minority this scheme may save money. To the great masses it is far too high. In 1941 medical schemes took care of people unable to meet medical fees.
7. Was the socialization of medicine the first profession to be brought within the orbit of state control? My answer. Such a step is embodied in the prepared plan for all communistic activities. Lenin said, "Socialized Medicine is the Keystone to the Arch of the Socialist state." In New Zealand they have been true to form.

Question: Do you consider there is much waste of money in the administration of the scheme?

Answer: Yes. An army of civil servants are

engaged full-time in routine office work, checking claims, etc., for all benefits under the scheme. In 1940 much of this work was done voluntarily by lodge members or by secretaries to lodges and to doctors. Most doctors have found it necessary to engage a full-time secretary whose work is to have forms signed and checked, etc.

Pharmaceutical benefits are particularly abused. Because it costs the patients nothing. They do not use all that has been prescribed or they use much more than necessary. Many of the homes in New Zealand could discover a dozen or so bottles of medicine only half empty. There is an old saying, "Anything acquired for nothing is worth nothing." I fear the people in New Zealand have that attitude to their free medicine.

Question: Do you think the economic structure of New Zealand can stand up to this tremendous change?

Answer: I think the day of reckoning must come. It is the great waste of money and time that will bring ruin to the scheme.

Question: Did the people of New Zealand oppose the introduction of the scheme?

Answer: Yes, a small section, the B.M.A. They were very vocal in opposition, but they were not supported by the business community. The people in New Zealand failed to realize that this was the socialist technic and did not appreciate the effect it would have on their lives. It was their apathy in opposing the socialists that made passage of our law possible. They were hoodwinked by promises of something for nothing. It was the "thinking" people of my country who did not register their opposition. They are the people in this country upon whom must be impressed that the price of security is their freedom.

Question: Do you think that the incentive for post-graduate work has been removed?

Answer: Members of the profession feel that any higher qualifications or advanced study is discouraged. Such a course is expensive and probably not recoverable from the public.

Question: Has it had any effect on the relationship between the doctor and the patient?

Answer: Most certainly. That confidence, so necessary, has been lessened because the dignity and prestige of the profession has suffered.

Having thus far dealt with the actual socialization of medicine in my country, its cost to the people, its objective, its apparent good and its apparent evil, may I now address to you some remarks, bearing upon the impact on society which socialization has had.

These views are my own but they are shared, I am bold enough to say, by the majority of New Zealanders.

Since 1941 the New Zealand government has brought under its power, the Bank of New Zealand, the dental profession, chemists, masseurs, National Airways, etc. This procedure merely

goes to prove that the regimentation of the medical profession was the forerunner of a carefully calculated procedure as outlined by those fellow travellers. The communists. And here I sound a note of warning—take heed America lest it happen here. Don't say it cannot. New Zealand said it and so did every country that today is under the heel of dictatorship. It can and it will unless you band yourselves together in a National Forum and oppose it with all the strength you can muster. Passive resistance, subdued mumblings of disapproval among yourselves will get you nowhere. The people of this great country must be informed of the danger that stalks them, all sections must be made aware of the subtle methods adopted by the exponents of socialism. They must be made aware of the inevitable developments if such a system is countenanced in this fair land. The people must be warned of the honeyed words of the advocates, the sly and camouflaged propaganda, the fallacy of the plan of "Utopia in our time" and "something for nothing" theorists. They must be convinced that in the realm of politics, sociology and economics the layman is very liable to accept bad practices if they are adroitly concealed with good intentions. Every collectivist argument involves the "welfare" of the people and such specious statements are misleading and misguided. There is no important difference between the collectivist systems, be it socialism, communism, nazism or fascism. In the end they all reduce the citizen to the position of abject submission to cruel and capricious bureaucrats, a condition which adherents to this collectivist system seem to condone. Adherents and advocates of a system which subjugates the rights of the individual to the state have a "modus operandi" so to speak. It is a constant equation. It never changes. They advance upon society and incorporate it in the state—piecemeal—cell by cell. In this manner they never raise the voice of objection of the masses of the people at once and so avoid concerted opposition. Like Hitler "We have no further territorial ambitions" till all is quiet and the stage set again for "peaceful penetration." I do not propose delivering a diatribe on the strategy of socialism. I merely mention these points because in New Zealand I experienced this form of collectivist strategy. The majority of the inhabitants of my country failed to appreciate the end-result and refused to heed the warning given, refused to hear the word of reason, and as a result socialism took the helm.

Gentlemen, I am a father of seven children and it is my duty and my pleasure to provide them with food, clothing and shelter, and by precept and example make them good citizens. I wish to see them develop the attributes of courage, initiative, enterprise, self-reliance and good Christian characters. Is it possible under a socialist dominated country where the only avenue of employment will be with that of a soulless

state, a mere automaton, a cog in the vast machinery of collectivism?

In my opinion socialism encourages indolence, it disapproves of the development of individualism or self-reliance, it strikes at the very moral fibre of our young people and destroys the fabric of their character. I do not wish to see my family grow up unaware of the dignity of work and devoid of the sense of pride of achievement. I wish them to have to work and shape their own destinies, to learn of the value of adversity and enjoy the sweet fruits of success gained for themselves and by their own effort.

I do not wish them to grow up the dupes of arrogant and calculating wreckers whose ambition will be realized only when communism becomes a reality and then the opportunities of their country, this world and their lives have been frittered away. Then it will be too late to save themselves for the final reason that there will be nothing to save. That is why I suggest that all Christian people should band themselves together and form that National Forum and face up frankly and brutally to the question "Are we going to stand it any longer?"

There is no hysteria about this. I am speaking from experience. I am speaking as a lover of freedom who sees liberty being filched from me by impractical ideologists who have become fanatics.

The world today is one vast seething mass of discontent, suspicion, unhappiness and uncertainty. We have just concluded a war against German National Socialism, the most bloody war the world has ever known. Six long years of bestial brutality. We witnessed the cities of Europe being bombed and blasted and burned. Tens of thousands of our best moral men and women have laid down their lives on the battlefields and in the cities of wartorn Europe and the Pacific, thousands of little children were killed, thousands of others died of disease and starvation—all to halt the Nazi hordes. The cost in human life and misery was great—all this to stem the tide of dictatorship. Today we face the possibilities of yet another brutal war. This time, against another country, but against a similar enemy and for the same reason, to preserve our way of life, our freedom and liberty. I see in the socialization of medicine the first stage of the encroachment upon our civil liberties and we must convince all of our people that their freedom is undoubtedly tied up with every other section of the country.

The greatest tyranny has the smallest beginnings. From precedents overlooked, from remonstrances despised, from grievances treated with ridicule, from powerless men oppressed with impunity, and overbearing men tolerated with complacence, springs the tyrannical usage which generations of wise men may later perceive, lament and resist in vain. At present, common minds no more see a crushing tyranny in a trivial

unfairness or a ludicrous indignity than the eye, uninformed by reason, can discern the oak in the acorn or the utter desolation of winter in the first autumnal fall. Hence the necessity of denouncing with tireless perseverance every single act of oppression. Let it alone and it stands on record. If the country has allowed it and when it is at last provoked to indignation and resistance it finds itself gagged with the record of its own inertia.

Socialists are flying in the face of the natural law. This law cannot be shouted down by mobs, nor argued out of existence by doctrinaires or repealed by governments. It has stood the test of time and around it has developed our society as we know it now. In effect, socialism seeks to take away someone's rights to which, under custom and belief of the people, he is rightly entitled. I have said that socialism strikes at the very roots of democracy. Karl Marx wrote "The democratic concept of man is false because it is Christian. It holds that each man has a value as a sovereign being. This is the illusion, dream and postulate of Christianity."

Hitler wrote "To the Christian doctrine of the infinite significance of the individual's human soul, I oppose with icy clarity the saving doctrine of nothingness and insignificance of the individual human being."

Under these two isms God can have no place in the totalitarian state. In his place stands the dictator. Our civilization is based on Christianity.

Gentlemen, I appeal to you to be up and doing. In the unchangeable pattern of socialism you are to be the next victim. Should you submit—then you permit the laying of the foundation for a totalitarian structure to be built. If you allow totalitarianism to exist here on any scale, then you expect it to be maintained by Gestapo police methods—dictatorship, loss of liberty and opportunity and resultant degradation of the mass of people.

In conclusion, gentlemen, I hope nobody says "I have enjoyed your speech." I have not given it for your enjoyment. I hope it worries you excessively. I hope it causes you sleepless nights until you have done something about it, until you join the National Forum. I hope your action will be affirmative and effective so that you will safeguard your rights of democracy—your way of life—the American way of life.

Wendell Wilkie once said, "This program will not interest those people who regard America as a socialistic laboratory. It will not interest those people who regard this country as a free lunch counter. It will certainly not interest those people who imagine this country as somewhat of a worked out gold mine out of which they wish to snatch a nugget or two for themselves. It will only interest those people who know and love their land—who know that its prosperity was

only built up by the thrift and industry of its people and whose greatness can be retained in no other way."

Thank you very much. I wish you much worry and real concern.

A. M. A. COUNCIL CONDEMS FRAUDULENT CANCER REMEDIES

Numerous fraudulent cancer "treatments" are being offered the American people, warns the Council on Pharmacy and Chemistry of the American Medical Association.

In a report appearing in the January 8 issue of *The Journal of the American Medical Association*, the council emphasizes that a drug cure for cancer has not been found, despite promising experiments with hormone therapy and injection of radioactive elements.

"At the present time," the report says, "the established treatment for cancer consists of the use of surgery and irradiation, either with radium or x-rays."

Among the most insidious of cancer nostrums is "collodaurum," a preparation of gold, promoted as a "palliative" with insinuations that it is of some benefit and may possibly cure, the report points out.

That this product is not the specific remedy that the Kahlenberg Laboratories, Sarasota, Florida, claim it to be is evident from its history. The product was previously promoted for therapy in arthritis and tuberculosis.

"This manipulation removes 'collodaurum' only slightly from the category of the cure-all nostrums," says the council, adding:

"No sound evidence exists to show that gold in any form by any route of administration is of any real benefit for the palliation or cure of cancer."

A food faddist, Johanna Brandt, author of a book, "The Grape Cure," promoted the false notion that diet has a specific influence on the origin or progress of cancer.

"The Grape Cure," according to the A. M. A. council, represented that eating grapes alone would cure cancer and practically all other human diseases. The book was distributed by the Harmony Centre, Inc., New York, which capitalized on "grape cure" propaganda by advertising that it had grape juices and concentrates for sale. The distributor of "The Grape Cure" has been cited in a cease and desist order issued by the Federal Trade Commission and a fraud order issued by the United States Post Office Department.

Too early and too enthusiastic efforts to publicize the "news" of unproved methods of treatment for cancer, the "KR serum" originated by Russian investigators, for example, have aroused false hope, the council indicates.

"KR serum" is made from the serum of mice infected with certain strains of a protozoan, *Trypanosoma cruzi*, the cause of a serious tropical illness called Chagas' disease, or from cultures so infected.

Results obtained by American investigators indicate that the serum does not at present hold out much promise in practical clinical therapy, the report says, adding:

"The cry of 'wolf' too often could easily create indifference to an announcement of a truly effective remedy for advanced cancer when such a goal is ultimately realized."

NEW DEPARTURE CLINICAL FELLOWSHIP IN INDUSTRIAL MEDICINE

Under the joint sponsorship of the New Departure Division, General Motors Corporation, Bristol, Connecticut and the Yale Institute of Occupational Medicine and Hygiene, utilizing medical, teaching and hospital facilities in Bristol and New Haven and the cooperative assistance of the Bureau of Industrial Hygiene, Connecticut State Department of Health, a one-year clinical fellowship is offered to a qualified candidate who wishes to pursue a graduate course of instruction in occupational medicine.

Candidates

A candidate must be a graduate of a Class A medical school, from the upper two-thirds of the class. At least twelve months rotating internship (or mixed type hospital training equivalent to this) is required in addition to an evidenced interest in occupational medicine and hygiene, public health, health conservation and case finding programs. Personality qualifications should include well developed social consciousness combined with a practical aptitude and liking for diagnosis and medical and surgical therapy on an individual basis. General qualities of character must be satisfactory and personal interview will be necessary. A license to practice medicine and surgery in the state of Connecticut is required. Desirable additional qualifications include: practical experience in occupational medicine and hygiene (service with the Armed Forces may be acceptable); graduate or practical public health experience; additional intern or resident training.

Content of the Program

The work is arranged in a manner to devote approximately two months during the year to each of the following sections: preplacement and periodic physical examinations; case of injuries and occupational diseases; health consultations; industrial hygiene and safety including an uninterrupted two-or three-week period of orientation with the Bureau of Industrial Hygiene, Connecticut State Department of Health; administrative practices; special assignments which shall include a short thesis or project to be carried out during the year; attendance at 20 or more clinical conferences at the School of Medicine; attendance at graduate sessions in Public Health including Public Health 110 (Industrial Hygiene and Sanitation, Winter Term, 24 hours), observation of the Hartford Small Plant Services (one or two weeks in Plants). A candidate who completes his fellowship to the satisfaction of the faculty will be awarded a certificate.

Stipend and Other Arrangements

The annual stipend varieties, but as a rule is between \$2500 and \$3600, depending on experience, marital status and other factors. Meals and living quarters are not supplied; however, assistance will be rendered to the candidate in making arrangements for quarters in Bristol. For his own convenience, the candidate should have an automobile.

Applications

Application forms for this fellowship, which will run from July 1, 1949 through June 30, 1950, may be obtained from the Institute. Applications must be received before April 1, 1949.

Have you made your hotel reservations for the Centennial Session? The place is Hotel DeSoto, Savannah; the dates May 10-13, 1949.

CANCER COMMISSION, MEDICAL ASSOCIATION OF GEORGIA**CANCER NEWS**

As chairman of the Cancer Commission I often receive telephone and other types of inquiries from people who ask the following questions: (1) "To whom should I go to obtain a good check-up to detect cancer?" (2) "How long does it take for the examination?" and, finally, (3) "How much does the doctor charge?"

These queries, at first glance, would appear to be of little importance, especially so when considered in the present light of public information that is so strongly beamed to the people concerning cancer detection, yet when thought of in the terms of economics and the practice of medicine they become of considerable interest.

In answering the first question, it has been the policy of my office to advise the patients to go first to their family physicians. We think that, unless the family doctor feels he is inadequate, he should be as good a detector of cancer as anyone else. He knows the family background, and is capable of making a thorough physical examination; and, if necessary, he also knows where he can obtain other pertinent help should he need it. So far, I have not had anyone tell me that they have been disappointed in my advice.

We now come to the second question. The time allotted to detect cancer depends largely upon the physician making the examination. Of course, these patients should be given special appointments. First and foremost, a concise history should be obtained of any unusual complaints, especially unusual bleeding, newgrowths, indifferent bowel habits, coughs, and weight loss. Some attention should also be paid to a family history. There is considerable evidence that cancer runs in family groups. Secondly, a physical examination should be made from head to foot. Emphasis should be placed on the examination of breasts, the oral cavity, glandular areas, pelvic organs in the female, tests and rectum, and finally a complete blood count and urinalysis should be made. We feel that whenever the patients are over forty years of age they should have x-ray examinations made of the chest and intestinal tract. Such an examination as outlined, and which is negative, should make one feel secure that one is probably not cancerous. Some folks recommend that a Papanicolaou smear be obtained also, but we think that whenever the cervix looks and feels normal, and is not troublesome, this part of the examination

may be eliminated. However, suspicious cervical areas should always be biopsied.

Finally, we approach our last question about the cost of such an examination. This is a hard one to crack. We do know, however, that it is of great importance, especially so at this time, when the doctor is behind the eight-ball with compulsion insurance and government regulation of medical practice staring him in his face. He further knows, or should know, that any patient who has ever had a serious hospital illness in his family, or who has had large medical or surgical fees to pay, is a patient probably favoring medical socialization. With those thoughts in mind, we hope that our physicians, and those giving collateral services, such as x-ray and other laboratory procedures, will endeavor to make their charges conform to the patient's reasonable ability to pay. We feel that those unable to pay will not be turned away and, if necessary, they can also be examined at the free detection centers nearby. We must insist, too, that the detection centers give their time largely to those *unable to pay* and guard against encroachment by those who *could pay for* an examination. If necessary, we could probably evolve a fee schedule but to do so is a job we would hesitate to undertake because different localities necessarily would demand different fees. We are willing to risk professional fees in the laps of our doctors, feeling that they will merge into our cancer detection program as a very necessary form of public service. We are ever mindful that most doctors have always done large amounts of charity work, and will continue to do so, even though so many of our people take advantage of them and often forget to pay for service.

To summarize, therefore, we feel that a reputable family doctor can detect cancer satisfactorily. We further hope that he will gladly arrange his office schedules so that those requesting such service will not be delayed. Finally, we are certain that our physicians will see to it that no patient is subjected to an embarrassing charge, or an unreasonable fee for the examination. If our contentions and our faith in these matters are based upon solid ground, then we can be doubly assured that cancer detection in Georgia will continue to advance.

JACK C. NORRIS, *Chairman*
Cancer Commission.
Medical Association of Georgia

PRESIDENT'S PAGE

VOLUNTARY PREPAYMENT MEDICAL PLANS GAINING IN PUBLIC FAVOR

Medical care in the United States is generally conceded to be the best in the world. The question now is: How can this quality of service be made available to every citizen? Oscar Ewing, Federal Security Administrator, urges compulsory health insurance, with the government paying all bills from money collected by an over-all payroll tax. The A. M. A. advocates voluntary health insurance benefits paid from premiums collected through insurance features without governmental control.

In sponsoring the American way the emphasis is always on freedom as against compulsion. Individual volition versus Federal taxation! Doctor-patient relationship in contrast to regimentation! Some plans, for various reasons, usually actuarial, have progressed slowly or have even failed. Others have proceeded cautiously, guided by experienced advisors. They are now rendering good medical and surgical care to the people of the low income group at a fair cost.

Neither compulsory health insurance nor voluntary prepayment medical care plans make provisions for the indigent or non-productive individual. Those in this category require, and should have, good medical care. The expense of such care is borne by the taxpayer at the local level, and it is assumed that this method will continue. With more and better hospital facilities in the sparsely populated areas and better distribution of physicians in the future, all our people should receive competent and ample attention.

The adoption of the plan of hospital development, as proposed by Dean Lombard Kelly of the University of Georgia School of Medicine, will be of tremendous benefit to our program of improving Georgia's health.

Ten years ago a voluntary prepayment medical care plan was instituted by the California Medical Association. It experienced the usual vicissitudes of similar plans, but perseverance brought gratifying results. George Creel, writing in *Collier's Weekly* of February 26, 1949, describes

the plan in detail. He states that the California Physicians' Service has 9,500 participating physicians and 750,000 dues-paying members, and that it is believed 1,000,000 persons will be on the rolls by the end of this year. He points out that the plan is practically free of red tape; the professional care is satisfactory and doctors and hospitals are paid promptly each month. "Today," says Mr. Creel, "42 states have prepaid medical service plans that provide for treatment, surgery and hospitalization on a strictly voluntary basis at a cost well within the means of the average wage earner, and it is only a question of time before the other six states will fit themselves for membership."

A special committee of the Medical Association of Georgia worked long and faithfully preparing a plan suitable for our State. The efforts of the committee deserves the gratitude of every member of this organization.

This committee worked out a plan and in due course the Committee on Public Policy and Legislation introduced the bill in the 1949 General Assembly of Georgia. That body failed to enact it into law, although members of the medical profession in the Legislature worked earnestly for the measure.

Georgia continues as one of the six states without a voluntary prepayment medical care plan. We lag through no fault of the medical profession. It's true that we might have offered a bill to the Legislature some years ago when we began studying voluntary plans, but unfavorable reports from certain sections deterred us. Delay, however, was not without its reward. We have had occasion to observe the development of hospital insurance and medical care plans here and elsewhere and profit by their experiences.

Any errors, if present, in our proposed plan should be corrected. Then it should be widely publicized. We should enlist the help of lay organizations, and other interested groups should come to our aid so that at the next meeting of the General Assembly we will be able to present a plan so obviously beneficial to all the people that it cannot be ignored.

EDGAR H. GREENE, M.D.

THE JOURNAL
OF THE
MEDICAL ASSOCIATION OF GEORGIA

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MARCH, 1949

**A. M. A. OFFERS CONSTRUCTIVE 12-POINT
HEALTH PROGRAM**

The American Medical Association has announced a new, 12-point health program for the advancement of medicine and public health which its Journal says is "far more comprehensive than any yet proposed by either the President of the United States or the Federal Security Administrator."

"It has the advantage," The Journal says in an editorial in the current February 19 issue, "that it can be developed and administered as a logical evolution from the existing institutions in the United States without bringing about chaos through a complete overthrow of what has already been admitted by everyone to be the highest quality of medical care available in any country in the world."

The 12-point program, developed over a period of years with a view to charting a safe and sure road toward advancement of the nation's health, was approved and adopted by the Board of Trustees of the American Medical Association. The program follows:

A Federal Department of Health

1. Creation of a Federal Department of Health of Cabinet Status with a Secretary who is a Doctor of Medicine, and the coordination and integration of all Federal health activities under this Department, except for the military activities of the medical services of the armed forces.

Medical Research

2. Promotion of medical research through a National Science Foundation with grants to private institutions which have facilities and personnel sufficient to carry on qualified research.

Voluntary Insurance

3. Further development and wider coverage by voluntary hospital and medical care plans to meet the costs of illness, with extension as rapidly as possible into rural areas. Aid through the states to the indigent and medically indigent by the utilization of voluntary hospital and medical care plans with local administration and local determination of needs.

Medical Care Authority with Consumer Representation

4. Establishment in each state of a medical care authority to receive and administer funds with proper representation of medical and consumer interest.

New Facilities

5. Encouragement of prompt development of diagnostic facilities, health centers and hospital services, locally originated, for rural and other areas in which the need can be shown and with local administration and control as provided by the National Hospital Survey and Construction Act or by suitable private agencies.

Public Health

6. Establishment of local public health units and services and incorporation in health centers and local public health units of such services as communicable disease control, vital statistics, environmental sanitation,

control of venereal diseases, maternal and child hygiene and public health laboratory services. Remuneration of health officials commensurate with their responsibility.

Mental Hygiene

7. The development of a program of mental hygiene with aid to mental hygiene clinics in suitable areas.

Health Education

8. Health education programs administered through suitable state and local health and medical agencies to inform the people of the available facilities and of their own responsibilities in health care.

Chronic Diseases and the Aged

9. Provision of facilities for care and rehabilitation of the aged and those with chronic disease and various other groups not covered by existing proposals.

Veterans' Medical Care

10. Integration of veterans' medical care and hospital facilities with other medical care and hospital programs and with the maintenance of high standards of medical care, including care of the veteran in his own community by a physician of his own choice.

Industrial Medicine

11. Greater emphasis on the program of industrial medicine, with increased safeguards against industrial hazards and prevention of accidents occurring on the highway, home and on the farm.

Medical Education and Personnel

12. Adequate support with funds free from political control, domination and regulation of the medical, dental and nursing schools and other institutions necessary for the training of specialized personnel required in the provision and distribution of medical care.

Commenting on various points of the program, The Journal said, editorially:

Many of the planks in this platform have been advanced by the American Medical Association for many years. Thus the American Medical Association has urged the creation of a Federal Department of Health of cabinet status, in which all federal health activities could be coordinated and integrated, for more than seventy-five years.

The National Science Foundation bill was passed in 1948 by both the Senate and the House and vetoed by the President because of differences on the manner of administration. No doubt such differences of opinion will be adjusted and this measure will become effective.

The American Medical Association is now committed to urging the widest possible extension of sound systems of voluntary prepayment plans to meet the costs of hospital and medical care. Much confusion has resulted from differences of opinion as to how such extension could be best achieved, whether by a national insurance company, which would combine Blue Cross and Blue Shield plans or by a coordination of voluntary and private prepayment plans into a single organization which would contract with the Blue Cross for various services. During the past week extensive negotiations have been held among those especially interested in this phase of the problem, and steady progress is being made toward a mutually satisfactory solution.

Among the difficulties in meeting the problems of persons in the low income group and of the indigent is the difficulty of utilizing funds developed by the individual states and the federal government without the establishment of a great new bureaucracy or the nationalization of health

activities. The proposal has been made that there be established in each state a medical care authority or board which could receive such funds and distribute them where the need could be shown. The Association recognizes the right of the consumer in planning for medical care and urges proper representation of both medical and consumer interests on such state medical care authorities.

Today in the United States all persons properly informed as to medical conditions recognize the need for the establishment of diagnostic facilities and health centers, particularly in remote areas in which physicians do not go simply because provision is not made for the use of technics of clinical pathology and roentgen ray, which are inseparable from good medical practice. The American Medical Association recognizes that funds have already been provided by the Hospital Survey and Construction Act not only for the extension of hospital services but also for the development of diagnostic facilities and health centers. Notwithstanding the fact that everyone concerned urged the passage of this act, the actual functioning has been pitifully slow. Whether or not the delay can be laid to local, state or national agencies concerned in this phase of progress, the fact remains that the leadership that should have come from federal agencies in promoting properly the development of these facilities has been noticeable by its absence.

All the health agencies in the United States are urging the extension of local public health units and services throughout the nation. Again and again leaders have pointed out that almost half of the counties in the United States are without such services. Through such local public health units the control of communicable diseases and of venereal diseases may be exercised.

Here the vital statistics for the community may be assembled. In such agencies plans may be devised for maternal and child hygiene and for the extension of sewage facilities, which are lacking in thousands of communities. Here also the public health center may be located and public health laboratory services maintained. Notwithstanding the forward-looking aspects of this program, everyone should recognize that the greatest lack is in personnel. Our public health schools do not develop enough public health officials to meet the need, and technicians in all the accessory professions are also in short supply. Finally, the remuneration of public health officials is ridiculously small in view of the tremendous responsibilities that they carry for the health of the people.

The investigations that have been made in recent years indicate that psychiatric problems are coming rapidly to the fore as a primary cause of disability and illness. During the war institutions for the care of the mentally disturbed suffered the deterioration that was characteristic of many other medical agencies, in most instances

due to lack of funds. Thus any comprehensive program for the care of public health must require the development of a program of mental hygiene and the establishment of mental hygiene clinics in suitable areas.

Experience has shown that vast numbers of people are not only unaware of the basic principles of personal and public hygiene but also unaware of easily available medical facilities in their own neighborhoods. These people can be reached only by a program of health education directed specifically to them and utilizing the mediums of information with which they would be continuously in contact. Health education should be a function not only of federal agencies but also of state and local public health agencies and of the medical profession. The philanthropic and voluntary health organizations in the United States do a far better job in relation to such conditions as cancer, tuberculosis, heart disease, infantile paralysis and other conditions than do the governmental agencies.

As far as can be determined, proposed legislation, including that for compulsory sickness insurance, would not reach the aged. Neither would it satisfactorily cover those with long standing chronic diseases nor such underprivileged groups as the Negro population and the Indians. Certainly special legislation would be required to provide facilities for care and rehabilitation of these groups.

The Hoover Commission and other governmental agencies which have recently been concerned with the vast wastefulness that prevails in medical care under federal governmental auspices have insisted that there should be integration of veterans' medical care and hospital facilities with other medical care and hospital programs. Already the public is aware of the losses that occur from duplication of medical facilities by the Army and Navy and Public Health Service. The changes that have come about in the care of the veteran since the fundamental change in administration that began with General Bradley and has been continued under Mr. Gray have raised tremendously the standard of veterans' medical care. One of the most important aspects of this procedure has been the care of the veteran in his own community by a physician of his own choice and also the utilization of the voluntary insurance plans.

More emphasis on industrial medicine and the prevention of unnecessary accidents would vastly benefit the American people. Today accidents are fourth in the list of the causes of death. A suitable program on prevention of accidents would make available, according to recent estimates, more than ten and possibly 15 per cent of the beds now occupied in all hospitals by the victims of accidents.

Finally a system of medical care cannot rise above the level of the medical, dental and nursing education and the accessory of medical profes-

sions. Today these agencies are without adequate funds to bring about necessary improvements. A voluntary foundation is in process of development in order to secure additional funds. Conceivably the states will do more for their state medical schools than they have done in the past. Possibly also federal funds may be necessary, but whenever governmental funds are used they must be employed under some system that would make their use free from political control, domination and regulation by governmental agencies.

A. M. A. PROVIDES \$25,000 TO SET UP CHRONIC ILLNESS COMMISSION

Carrying out another of the objectives of the American Medical Association's 12-point program for the advancement of medicine and public health, the Board of Trustees of the A. M. A. has made available \$25,000 to set up the Commission on Chronic Illness.

The sum, drawn from the A. M. A.'s national education campaign fund, was allotted to the Interim Commission on Chronic Illness, which will set up the permanent commission. The A. M. A. has also provided office space at its Chicago headquarters to the permanent commission, representing voluntary agencies, government agencies, and the public.

Purpose of the commission will be to promote programs for the control of chronic illness in every state.

The A. M. A. program listed "Provision of facilities for care and rehabilitation of the aged and those with chronic disease."

The patient with chronic illness is one of the major challenges to modern society. Sooner or later some form of long term illness affects one or more members in most families of the nation.

A conservative estimate suggests that more than one sixth of the population is afflicted with some chronic disease. Approximately 2,000,000 persons in the United States are chronic invalids at the present time, and the number is steadily increasing.

The commission is a joint project of the A. M. A., the American Hospital Association, the American Public Health Association, and the American Public Welfare Association, and was recommended by the Section on Chronic Disease of the National Health Assembly.

Dr. James R. Miller, Hartford, Conn., member of the Board of Trustees of the A. M. A., is chairman of the Interim Commission and will be a member of the permanent commission.

Other members of the Interim Commission, all of whom will be among the members of the permanent commission of approximately 30, are Dr. Thomas A. McGoldrick, Brooklyn, N. Y., representing the A. M. A.; Dr. Albert Snone, New Haven, Conn., and J. Douglas Colman, executive director, Maryland Hospital Service, Baltimore, representing the A. H. A.; Dr. Dean W. Roberts,

chief, Bureau of Medical Service, Maryland State Health Department, Baltimore, and Dr. Edward S. Rogers, of the Public Health School, University of California, Berkeley, representing the A. P. H. A.

Dr. Ellen C. Potter, Deputy Commissioner for Welfare, State Department of Institutions and Welfare, Trenton, N. J., and Judge Thomas S. J. Waxter, Domestic Relations Court, Philadelphia, will represent the A. P. W. A.

Mrs. Lucille M. Smith, of the Division of Public Health Methods, Public Health Service, Washington, D. C., representing the A. P. W. A. on the Joint Committee of the A. M. A., the A. H. A., the A. P. H. A. and the A. P. W. A., from which the Interim Commission developed, has been loaned by the Federal Security Agency to assist the Interim Commission as executive secretary in establishing the permanent commission.

This coordinated effort in the field of chronic illness is an excellent example of constructive cooperation between public and private agencies in answering one of the greatest and most acute of all social needs.

The permanent commission will include also representatives of the general public, education, churches, hospitals and medicine, agriculture, labor, management, public health, psychiatry, journalism, nutrition, and economics and sociology.

The Interim Commission has suggested the following objectives for the permanent commission:

1. To modify the attitude of society that chronic illness is hopeless; to substitute for the prevailing over-concentration on provision of institutional care a dynamic program designed to prevent chronic illness, to minimize its disabling effects, and to restore its victims to a socially useful and economically productive place in the community.

2. To clarify the problems arising from chronic illness among all age groups, with full realization of its social as well as its medical aspects.

3. To coordinate separate programs for specific diseases with a general program designed to meet more effectively needs which are common to all the chronically ill regardless of the cause or causes of their illness.

4. To clarify the interrelationship of professional groups and agencies now working in the field.

5. To stimulate in every state and locality a well-rounded program for the prevention and control of chronic diseases and for the care and rehabilitation of the chronically ill.

Proposed activities of the permanent commission are:

1. To assemble existing data in order to evaluate and make use of all that is now available and to determine areas requiring further study.

2. To serve as a clearing house for information on laws, programs, experiments, and new developments; to keep all interested groups informed through a newsletter published regularly; and to publish special reports from time to time.

3. To stimulate the development of new methods and techniques in the organization and administration of services for the chronically ill.

4. To develop suggested patterns for integrated community programs.

5. To establish criteria for the appraisal of state and local chronic disease programs and facilities.

6. To give consultation to private and public state, regional, and local agencies interested in planning for the chronically ill.

7. To suggest priorities for the determination of immediate as against long range needs for the guidance of state and local communities.

8. To explore methods of implementing the recommendations made by the commission.

9. To prepare a report to the American people outlining a comprehensive plan for the prevention and control of chronic disease and for the care and rehabilitation of the chronically ill.

AMERICANS BETTER NOURISHED THAN IN PREWAR YEARS

The American people are decidedly better nourished than they were before World War II, despite the high cost of living, according to a report of the Council on Foods and Nutrition of the American Medical Association.

The report, appearing in the February 26 issue of *The Journal of the American Medical Association*, was written by Esther F. Phipard, Ph.D., and Hazel K. Stiebeling, Ph.D., Washington, D. C.

The average nutrient level in this country dropped somewhat in 1948 from the peak reached in 1945 and 1946, but was still high enough to be a decided improvement over pre-war levels and "exceedingly liberal" compared to that of most other countries, the authors say.

One of the most important changes for improved nutrition in the diet of Americans is the increased use of milk, they report.

"Reinforcing the upward trend since 1909 in the consumption of milk products such as cheese, ice cream, and evaporated and dried milk, the use of fluid milk rose sharply during the early war years," they say.

"In terms of total milk equivalent, consumption of milk and its products other than butter averaged nearly three cups per day per person in 1945—as compared with less than two cups in 1909. As a result there was an increase of 40 per cent in the calcium content of the per capita food supply and a considerable increase in riboflavin."

Consumption of citrus fruit and of leafy, green, and yellow vegetables also has shown an upward trend during these years, according to the

report.

"More than four times as much citrus fruit was consumed in 1945 as in 1909. Yearly per capita consumption of meat, poultry, and fish averaged 165 pounds or more in the period 1944 to 1947, compared with 137 pounds in the pre-war years, 1935-1939," the authors say.

Consumption of grain products and potatoes has declined considerably since 1909, although the downward trend was arrested during the war years, when supplies of fat and sugar were somewhat restricted, they point out.

For several nutrients the most striking increase has come since 1940. Higher levels of vitamin A and ascorbic acid can be associated with the increased consumption of vegetables and fruits.

The greatest increases were in thiamine, niacin, riboflavin, and iron, which were higher by a third to a half than the prewar levels. About half of these increases were the result of enrichment of flour and bread, the authors say.

Diet of families whose income has failed to increase in proportion to the increase in food costs is deteriorating, however, the report indicates.

"Although in the country as a whole per capita incomes were more than twice as high in 1948 as in 1940, food prices also about doubled in that period. Food costs affect everyone, whereas not all families have shared equally in income advances. Consequently, large numbers cannot afford to buy the kinds and quantities of foods needed for good diets," the report says.

In 1948 a family of four would have had to spend 50 per cent of a \$2,000 per year income on food to follow a low cost food plan prepared by the Bureau of Nutrition and Home Economics. In 1935, 35 per cent of the same income would have been required for food by a family of four following the plan.

"It is likely that thousands of families are spending a relatively large share of the family income for food at the expense of other needs, and that unless they spend this money in a nutrition-wise fashion, and so handle and prepare the food as to conserve food values to the utmost, diets are deteriorating accordingly," the authors emphasize.

VALUE OF HORMONE CREAMS HIGHLY CONTROVERSIAL

The value of hormone creams as "skin rejuvenators" is highly controversial, points out Maxine Block, Hollywood, Calif., in *Hygeia*, health magazine of the American Medical Association.

Writing in the current (March) issue of the magazine, Mrs. Block emphasizes that although the relation of cancer to sex hormones is still a laboratory problem, tests on animals showed that there is some danger that the hormones may cause malignancy.

"The Food and Drug Administration and the Federal Trade Commission have been watching

sex hormone creams carefully. It is felt that if the estrogenic substances are potent enough to have a physiologic effect they are drugs and should be sold as such, and if they do not contain sufficient estrogens to have any effect, then the Federal Trade Commission can crack down on them because of misrepresentation," he says.

Before a physician prescribes sex hormones for a woman he makes certain there is no predisposition to cancer, she emphasizes.

The only real praise for skin rejuvenating properties of hormone creams is that of the promoters, according to Mrs. Block.

Dr. Edward C. Pliske of the University of North Carolina School of Medicine, Chapel Hill, warns that "too high an estrogenic content might well prove detrimental to the human reproductive system," and believes that women should wait until more information is available regarding the effects of the powerful substances, she says.

After conducting experiments on guinea pigs with sex horomone creams to study treatment of women's diseases, Dr. Pliske thinks that the creams may cause wrinkles to disappear, she explains.

However, he found that some of the guinea pigs treated with hormone creams lost their hair, others showed changes in thickness of skin, and most of them showed that their reproductive organs were affected.

The American Medical Association holds that "in susceptible animals the administration of estrogens has apparently produced cancer, but further observations are necessary to determine all possible effects of long-continued use in the average human being."

The A. M. A. also believes that reproductive organ changes may be caused by the use of estrogens and that cosmetics cannot be expected to cause "marked physical changes when damage has been done to the skin by dissipation, age, excessive exposure, disease, lack of care, and malnutrition."

On the other hand, Mrs. Block reports, "makers of hormone creams believe that if there had been one authenticated case of cancer associated with estrogenic creams, it would have been reported because thousands of women have been using them."

COMPARES COSTS OF MEDICAL CARE WITH COST OF LIVING INDEX

Costs of medical care have not risen as fast as the cost of living, a comparison of the 1948 Consumers' Price Index with a preliminary index of medical care prices of the U. S. Bureau of Labor Statistics shows.

Writing in the February 26 issue of *The Journal of the American Medical Association*, Frank G. Dickinson, Ph.D., Chicago, director of the Bureau of Medical Economic Research of the American Medical Association, says the bureau

estimates from U. S. Bureau of Labor Statistics figures that the index of medical care items will stand at 141 for 1948.

The final report of the U. S. Bureau of Labor Statistics places the Consumers' Price Index for 1948 at 171.2. The base period 1935-1939 equals 100 in computing the entire index, of which the index of medical care items is a part.

Preliminary figures of the Bureau of Labor Statistics for costs of medical care in 1948 are:

General practitioners' services, 136; surgeons' and specialists' services, 136; dental care, 146; eyeglasses, 124; hospital rates, 212; and prescriptions and drugs, 122.

Figures of the Bureau of Labor Statistics for these items in 1947 were 130.3; 129.4; 137.4; 118.6; 179.6; and 115.4, respectively. The entire cost of living index for 1947 was 159.2.

"The most significant change is in hospital rates, which soared from 179.6 in 1947 to 212 in 1948," Dr. Dickinson comments.

"Prices for laboratory and other services rendered by hospitals are not sampled; hence the hospital index covers primarily room rates. The hospital is uniquely exposed to the forces of inflation. It buys goods and services and sells services soon after purchase. Its costs are not stabilized by such customary accounting items as depreciation and taxes because most hospitals are public institutions.

"Hence the changes in current prices of food and fuel and in hourly wage rates are potent in changing hospital room rates charged to patients because there are no other costs of importance.

"The sharp increase in the index of hospital room rates for 1948 over 1947 reflects to some extent the failure of hospitals to raise their rates earlier. The recent decline in prices of farm products has not yet materially reduced the operating costs of hospitals."

The estimates should "set at rest a good many wild and irresponsible statements about the exorbitantly high prices being paid for medical care," adds an editorial appearing in the same issue of *The Journal*.

HEALTHGRAMS

Vaccination with BCG must not be regarded as a substitute for approved public health measures nor can the vaccination of the general population be recommended at the present time except for carefully controlled investigative programs, several of which are now under way. Nat. Tuberc. A. Bull., March, 1948.

* * *

The first and greatest need is education; education of the people, and through them education of the state. It is evident that if every man and woman in the United States were familiar with the main facts relating to the manner in which tuberculosis is communicated and the simple measures necessary for their protection, not only might we reasonably expect as a direct result of this great knowledge a great diminution in the death rate of the disease, but the people would soon demand and easily obtain effective legislation for its prevention and control. Edward L. Trudeau, M.D., Nat. Tuberc. A. Tr., 1905.

GEORGIA DEPARTMENT OF PUBLIC HEALTH

THE DEPARTMENT OF PUBLIC HEALTH MENTAL HYGIENE PROGRAM

The State Department of Public Health ventured into the field of mental hygiene following the passage of the National Mental Health Act in 1946. This Act provides for grants-in-aid to states for the development of mental health programs at the community level to be administered by a designated mental health authority. In most states the designated mental health authority is the State Health Department. This is also true of Georgia.

However, in actual practice the mental health of Georgia citizens is the direct concern of two separate and distinct state agencies, the Department of Public Welfare and the Department of Public Health. The first is responsible for the disposition, treatment, and care of persons so mentally deranged or defective as to require commitment to an institution. The second is responsible for developing a program that will prevent mental illness or arrest its progress. In other words, the Department of Public Health has no administrative authority in the operation of the State hospital at Milledgeville nor of the training school at Gracewood. It must confine its efforts to community services; that is, the application of public health methods to the problem of mental disease.

One of these methods is patterned after tuberculosis, venereal disease, and cancer control; namely, the establishment of mental health clinics which will find and treat minor mental disorders before they develop into major ones. It is estimated that there should be one such clinic for each 100,000 population. The State of Georgia should have at least 30 clinics to satisfy this theoretic requirement. At the present time, we have two receiving State support. One is located at Savannah; the other at Augusta.

The Community Guidance Center of Savannah is located on the campus of Armstrong Junior College and was formally opened as a mental hygiene clinic on April 1, 1948. Prior to that time it was a vocational counseling center for veterans. It still carries on this function, as well as educational testing under contracts with the State Department of Education. The bulk of the patients seen in the clinic proper are children. Thus during the month of November 1948 only six adults were referred to the clinic as against 87 children. Referrals come from many sources, including public schools, children's agencies, veterans' administration, juvenile court, family service, public health nurses, ministers, and physicians. Behavior disorders of children occupy top position in the types of problems presented.

The Richmond County Mental Hygiene Clinic is located in the Administration Building of the School of Medicine, University of Georgia, in Augusta. It started operating as a full time clinic on September 15, 1948. Approximately 75 per cent of the patients referred, so far, have been adults, but the number of children is expected to increase. About half were referred to the clinic from the outpatient service of the medical school. The clinic is used as a teaching facility not only for students and psychiatric residents in the medical school, but also for psychiatric residents in the local Veterans' Administration Hospital.

It now appears reasonably certain that clinics will be established in Atlanta and Macon within the next few months. Expansion beyond that will depend upon the availability of personnel and of additional funds to finance new projects. The present setup has been the result of natural growth. The large urban areas have been able to raise local funds, as well as to attract the necessary professional personnel. This does not provide adequate coverage for smaller communities and rural areas. One solution may be to establish a number of mobile or traveling clinics. At any rate the program should be strengthened so that the following services can be performed by clinics on a State-wide basis:

1. Screen the mentally ill in need of hospitalization.
2. Continue treatment, if needed, for those discharged from hospitals.
3. Serve as a referral agency for all types of mental disorders and emotional problems for diagnosis, treatment, and disposition.
4. Render psychiatric service for those not in need of hospitalization, such as child guidance, vocational counseling, premarital and marital counseling, psychotherapy, and other treatment.

The integration of clinic services with hospital services could be facilitated by some changes in the commitment laws and by providing a number of psychiatric beds in general hospitals for the temporary care of psychotic patients. Some provision should be made for the voluntary and emergency admission of patients to the State Hospital at Milledgeville in order to curtail the delay attendant upon complying with present legal requirements. The use of psychiatric beds in general hospitals would do away with the necessity of confining psychotic individuals in jail pending final disposition.

The Hospital Division of the State Department of Public Health has taken cognizance of the need for psychiatric beds by providing for the addi-

tion of such beds in hospitals to be constructed under the provisions of the Hill-Burton Act. Tentatively Albany has been allocated 25 beds, Atlanta 150, Augusta 100, Columbus 75, LaGrange 25, Macon 50, Rome 50, and Savannah 125.

There is no denying that the establishment of mental hygiene clinics is an important phase of mental hygiene. However, the ultimate goal of prevention is to stop something before it happens. By the time a patient presents himself to a clinic something has already happened. In order to develop effective protective measures it is generally necessary to know the exact causative factors and the exact mode of transmission of the disease in question. In the case of mental disorders we know that a few are transmitted on a hereditary basis; a substantial number are acquired through infection, injury, and other physical factors; and a large number are apparently the result of psychologic stresses, particularly during childhood and adolescence.

The control of hereditary diseases is difficult to accomplish. One suggested method is the use of premarital examinations. It is relatively ineffective even if compliance with recommendations based on the examinations, as far as marriage is concerned, could be enforced. Couples do not have to wed in order to have children.

A more drastic method is the sterilization of individuals likely to transmit hereditary diseases. Georgia has a State Board of Eugenics, one of whose members is the Director of the Department of Public Health, that has the power to order sterilization of patients confined to State institutions. The superintendent of each institution, after consultation with his medical staff, recommends the operation for patients who, if released, would be likely to procreate a child who would have a tendency to serious physical, mental or nervous disease or deficiency. For obvious reasons the application of the law is quite limited.

The control of mental disorders having a physical origin is a corollary function of various component divisions of the Public Health Department, such as maternal and child health, industrial hygiene, nutrition, sanitation, venereal disease control, tuberculosis control, et cetera. Obviously any improvement in the physical health of Georgia citizens is bound to be reflected in a concomitant improvement in mental health. To cite an example, the venereal disease control program has apparently reduced the incidence of paresis. In 1936 general paresis accounted for 3.3 per cent of all admissions to mental hospitals in the United States in contrast to 5.7 per cent in 1945. There was an actual reduction of 14 per cent in the total number of cases during this ten-year period.¹

The control of mental diseases having a psychogenic origin is mainly a problem in health education, teaching mental hygiene principles

particularly to parents and teachers who play the leading role in developing our children's personalities. The Department of Public Health has made a start in this direction. One project is the distribution of a series of 12 pamphlets, one mailed each month, to all mothers having their first child. In addition, some 400 packets of literature on mental health have been distributed to libraries, schools, supervising teachers, and others to be used as reference material for discussion groups, parent-teachers' meetings, and the like. The nucleus of a film library has also been established.

Another project is the allocation of funds to the University of Georgia at Athens in order that it may develop a training program in mental hygiene for both undergraduate and graduate students in the school of education. This program also includes assistance to visiting teachers in the field who have to deal with exceptional children.

Many of these educational activities can be channeled through old established public health services, such as maternal and child health, by way of its prenatal and well-baby clinics. However, the brunt of the burden will fall on the professional people in mental hygiene clinics. It is natural for them to be called upon for lectures and speeches dealing with mental health topics. Eventually it is hoped that they will hold institutes in their local areas to disseminate psychiatric information among teachers, nurses, and other interested groups.

M. J. PESCOR, M.D., *Director,*
Division of Mental Hygiene

REFERENCE

1. Current Population Reports. Mental Institutions, July 10, 1947, Series P-85, No. 14, Bureau of the Census, Department of Commerce, Washington, D. C.

NOTE OCCURRENCE OF SCURVY IN WELL-FED CHILDREN

Despite the fact that modern nutritional knowledge has thoroughly proved that rickets and scurvy can be practically eliminated by the use of Vitamins C and D, these diseases still frequently occur in children, according to a recent editorial in the Journal of the American Medical Association.

Furthermore, the article went on to point out, a number of these cases of scurvy have arisen not in children subject to poverty, malnutrition and lack of medical care, but in infants who have shown good gains in weight and height, and who have been taken to physicians regularly.

In almost every case, these children had been fed on commercial preparations which are often misrepresented as "complete infant foods." The rapid gains in length and weight which the children experienced testified to the completeness of these foods—with the exception of vitamins. Because growth is occurring so rapidly during infancy, requirements for vitamins must be fully satisfied, or growth will cease.

The editorial states that it is unwise to rely on such infant foods for a total intake of vitamins, because the quantities fed from day to day and from child to child may vary greatly. It is necessary to maintain a closer watch on the vitamin intake of infants, supplementing their daily food if necessary, in order to eliminate scurvy and rickets from the American scene.—Michigan State Medical Society.

WOMAN'S AUXILIARY TO THE MEDICAL ASSOCIATION OF GEORGIA**AUXILIARY NEWS**

The Muscogee County Medical Auxiliary met for their luncheon program meeting with Mrs. Frank Lumpkin, local Red Cross blood bank program chairman, as their speaker. She told of the proposed plans for starting a Red Cross blood bank here, and also suggested ways in which the local auxiliary members could help in the undertaking. Mrs. Lumpkin then introduced Mrs. Natalie Suttles of Atlanta, area field consultant of the National Blood Bank program of the American Red Cross, who spoke on the blood banks already established and the amount of preparation and perfection of details required before a blood bank can be established in a city.

Officers are: Mrs. W. L. Cooke, secretary; and Mrs. John Walker, treasurer. Mrs. Mercer C. Blanchard and Mrs. Ben Jenkins were welcomed as new members.

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Medical ethics was a topic discussed in a paper read by Mrs. J. F. Harper, of Coleman, at a meeting of the Woman's Auxiliary to the Randolph-Terrell Medical Society recently held at the home of Mrs. W. G. Elliott in Cuthbert. Another highlight of the program was Mrs. Elliott's talk as Doctors' Day chairman, in which she outlined plans for observation of the day by the Randolph-Terrell Auxiliary. Mrs. Elliott was formerly Doctors' Day chairman for the auxiliaries of the entire South, and is immediate past president of the Woman's Auxiliary to the Medical Association of Georgia. Mrs. A. R. Sims, of Richland, president of the Auxiliary, presided.

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The Sixth District Medical Auxiliary met recently in Macon at the Sydney Lanier House. Dr. Sam Anderson spoke on medical legislation. Visitors included Mrs. Sam Anderson, Mrs. Harry Rogers, Dr. Edgar Greene and Dr. Enoch Callaway. Election of officers was held as follows: District manager, Mrs. Shannon Mays, Macon; manager-elect Mrs. Edwin Allen, Milledgeville; secretary-treasurer, Mrs. Chas. Cooper, Macon.

MRS. CLIFTON G. KEMPER

POST-GRADUATE COURSE FOR GENERAL PRACTITIONERS, APRIL 11-15

University of Georgia School of Medicine

MONDAY, APRIL 11

- 9-11 Registration, visits to hospitals and departments and general orientation.
- 11-12 The Management of Functional Uterine Bleeding, Dr. Robert B. Greenblatt.
- 12-1 The Physiology of Labor, Dr. Richard Torpin.
- 1-3 Luncheon and round table discussion on Gynecology and Obstetrics, Dr. Richard Torpin, presiding.
- 3-4 The Urinary Bladder, Dr. J. Robert Rinker.
- 4-5 Visit to the Maternity Shelter, Dr. Richard Torpin.
- 5-6 Clinico-Pathologic Conference.

TUESDAY, APRIL 12

- 9-10 The Management of Acute Respiratory Illness in General Practice, Dr. Henry Schmidt.
- 10-11 The Treatment of Peptic Ulcer, Dr. Charles Hock.
- 11-12 The Treatment of Uncomplicated Diabetes Mellitus, Dr. Nathan DeVaughn.
- 12-1 Differential Diagnosis of Jaundice, Dr. V. P. Sydenstricker.
- 1-3 Luncheon and round table discussion on Internal Medicine, Dr. V. P. Sydenstricker, presiding.
- 3-4 Renal Factors in Cardiac Edema, Dr. A. P. Briggs.
- 4-6 Laboratory Demonstration in Parasitology and Microbiology, Drs. Sanderson, Dienst and Denton.

WEDNESDAY, APRIL 13

- 9-10 The Prevention and Detection of Cancers as Related to the General Practitioner, Dr. Edgar R. Pund.
- 10-11 Bronchiogenic Carcinoma, Dr. Robert Major.
- 11-12 The Early Diagnosis of Carcinoma of the Colon and Rectum, Dr. J. H. Sherman.
- 12-1 The Early Detection of Cancer by the Papanicolaou Technic, Dr. H. E. Nieburgs.
- 1-3 Luncheon and round table discussion on Cancer, Dr. Illoe Wammock presiding.
- 3-4 Pain, Dr. Wilford A. Risteen.
- 4-6 Shock Therapy, Dr. Hervey M. Cleckley.

THURSDAY, APRIL 14

- 9-10 Acute Influenza-like Epidemic in Children, Dr. W. A. Wilkes.
- 10-11 Allergic Skin Diseases, Dr. Malcolm Bazemore.
- 11-12 Problems in Blood Transfusion, Including the Rh Factor, Dr. W. L. Sheppard.
- 12-1 Management of the Allergic Patient, Dr. David R. Thomas.
- 1-3 Luncheon and round table discussion on Allergy, Dr. David R. Thomas, presiding.
- 3-4 Recent Advances in Treatment of Infertility, Dr. Robert B. Greenblatt.
- 4-5 Management of Fractures in General Practice, Dr. P. B. Wright.
- 4-6 The Use of Hypnotics and Analgesics in General Practice, Dr. Perry P. Volpitto.

FRIDAY, APRIL 15

- 9-10 Acute Infections of the Upper Respiratory Tract, Dr. W. Eugene Matthews.
- 10-11 Premature Ejaculation and Impotence, Dr. G. L. Kelly.
- 11-1 Treatment of Acute Coronary Occlusions, Dr. Harry T. Harper, and question hour on the following topics: Cardiac Arrhythmias, Use and Misuse of Digitalis, Hypertension, Heart Failure and Diagnosis of Heart Lesions Amenable to Surgical Treatment.
- 1-3 Luncheon and round table discussion of Blood-vascular Lesions, Dr. Harry Harper, presiding.
- 3-4 Resuscitation of the Newborn, Dr. Richard Torpin.
- 4-5 Endocrinology, lecture and demonstration, Dr. Robert B. Greenblatt.

NEWS ITEMS

Dr. Robert E. Baldwin, Dalton physician, is at the Erlanger Hospital, Chattanooga, Tenn., where he is taking some special training for an indefinite period. Dr. Walter K. Hoffman, a native of Memphis, Tenn., and classmate of Dr. Baldwin will be in charge of Dr. Baldwin's office during his absence from Dalton.

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Dr. William W. Baxley, Macon surgeon, has been named president of the medical staff of Mercy Hospital, Macon, for 1949. Dr. James B. Kay, Byron, president-elect; Dr. W. D. Jarratt, Jr., Macon, vice-president, and Dr. E. C. McMillan, Macon, secretary.

* * *

Dr. William A. Boyd, one of the leading orthopedic surgeons of South Carolina, recently addressed the junior and senior medical students at the University of Georgia School of Medicine, Augusta. In Augusta, at the invitation of Dr. Peter B. Wright, Augusta, chief of orthopedic surgery at the University Hospital and the University of Georgia School of Medicine, he was guest of honor at a luncheon given by Dr. Wright. Dr. Boyd is chief orthopedic consultant for the Crippled Children program of South Carolina, and orthopedic surgeon in Columbia Hospital and Waverly Sanitarium. He is a member of the State Board of Health and serves as an orthopedic consultant for the South Carolina Baptist and the Good Samaritan hospitals.

* * *

Dr. Paul L. Bradley, a native of Dalton and formerly of Montezuma, announces the opening of his offices for the practice of medicine in Dalton. Dr. Bradley graduated from Emory University School of Medicine, Atlanta, in 1943. After graduation, Dr. Bradley spent 27 months in surgical training at Grady Memorial Hospital, Atlanta. He was in the Army Medical Corps for a period of two years and was stationed at McCornack General Hospital, Pasadena, Calif. He served as chief of urologic surgery his last year there. After completing his Army service he returned to Grady Memorial Hospital for an additional year in surgery. Since last July he has been associated with Macon County Clinic, Montezuma.

* * *

Dr. Courtney C. Brooks, Cumming physician, recently purchased from Dr. W. E. Burdine, of Blue Ridge, his hospital and residence at Blue Ridge. Dr. Brooks will take charge of the hospital on April 1. Dr. Brooks graduated from Emory University School of Medicine, Atlanta, in 1941. He served one year internship at Scott-White Hospital, Temple, Texas, and served one year as house physician at St. Mary's Hospital, Birmingham, Ala. For the past five years he has been engaged in the general practice of medicine at Cumming, where he maintained a hospital. Dr. Brooks states that it is his purpose to maintain one of the best equipped hospitals in North Georgia where he will devote his entire time to medicine and surgery.

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The Central of Georgia Railway magazine current edition announces that Dr. Charles W. Westerfield, Savannah anesthetist, has been appointed to work with Dr. W. L. Osteen in the Central of Georgia Railway Hospital, Savannah. Dr. Lee Howard, Savannah, has been appointed assistant pathologist on the staff of the company's hospital.

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Dr. Ralph H. Chaney, Augusta surgeon, announces the removal of his offices to The Medical Court, 1445 Harper Street, Augusta. Practice limited to surgery.

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Dr. E. B. Claxton, Dublin surgeon, recently attended the Third Southern Assembly of Georgia, Florida, Alabama, Mississippi, and Louisiana of the United States Chapter of the International College of Surgeons held in Miami, Fla. Dr. Claxton is a fellow in the American College of Surgeons.

Dr. J. A. Corry, Barnesville physician, was recently re-elected chairman of the Lamar County Board of Health. Dr. S. B. Traylor, mayor of Barnesville, was named vice-chairman, and Dr. T. O. Vinson, Griffin, medical officer for the Tri-County Health Unit, was made secretary. The board endorsed the splendid work being carried on in the county. Drs. J. A. Corry and John Crawford are the clinic physicians. Lamar County's health program has expanded considerably in the past few years, since Lamar became a part of the Tri-County Health Unit composed of Spalding, Pike and Lamar counties. Dr. Corry is also a member of the State Board of Health.

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Dr. James J. Croley, LaFayette, who has been health commissioner of Walker, Dade and Catoosa counties since May 1948, recently resigned and returned to his former home at Williamsburg, Ky. No one has yet been secured to fill the vacancy.

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Dr. Joe S. Cruise, Atlanta chest physician, recently spoke before students of the School of Nursing of Warren A. Candler and St. Joseph's hospitals, Savannah. These students are taking specialized training in tuberculosis work under the leadership of the Chatham-Savannah Tuberculosis and Health Association. Dr. Cruise discussed experiments being made with B.C.G. vaccine, which is endorsed by some leading physicians as a cure for tuberculosis, but which is still under considerable debate.

* * *

Dr. Abe J. Davis, Augusta, was reappointed health commissioner for Richmond county by the Richmond County Board of Health at its recent meeting. Dr. Davis, whose present term of office will expire in March, was renamed health commissioner for the next four years. In a brief acceptance talk, Dr. Davis said that he had completed 17 years of public health service on December 31, 1948. He paid tribute to the Richmond County Board of Health for its efficiency and interest in public health problems.

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Dr. William Dameshek, Boston, recently spoke in the amphitheater at Grady Memorial Hospital, Atlanta, under the auspices of Phi Delta Epsilon medical fraternity, Emory University School of Medicine. Dr. Dameshek is professor of clinical medicine at Tufts College Medical School, chief of the blood clinic for Boston Dispensary and blood specialist on the staff of the Joseph H. Pratt Diagnostic Hospital, Boston.

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Dr. William A. Dodd, formerly of Macon, is now located in Dublin and associated with Coleman Hospital, Dublin, for general practice and internal medicine. He is a graduate of the University of Georgia School of Medicine, Augusta. He served his internship and a year of residency at Macon Hospital, and recently completed a six-months' postgraduate work at Crawford W. Long Memorial and Grady Memorial hospitals, Atlanta. Dr. Dodd is a veteran of World War II, having served as regimental surgeon for the 121st Infantry of the National Guard, when the medical detachment was organized after the reactivation of the guard.

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Dr. Charlotte Donlan, Savannah, director of radiotherapy at the Savannah Tumor Clinic, spoke on the work being done in the field of cancer at the January meeting of the Cathedral School Parent-Teacher Association. A moving picture was shown on the same subject.

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The Elbert County Medical Society, at its meeting recently held at Elberton, elected the following officers for 1949: Dr. A. S. Johnson, president; Dr. Carey A. Mickel, Jr., vice-president; Dr. John B. O'Neal, III, secretary-treasurer. Dr. D. N. Thompson was elected delegate to the centennial meeting of the Medical Association of Georgia to be held in Savannah, May 10-13, and Dr. John B. O'Neal, III, alternate delegate. Drs. A. S. Johnson, Jr., W. A. Johnson, and G. A. Ward are

censors. The Elbert County Medical society decided to hold monthly meetings, beginning in February, and it went on record as opposing any form of socialized medicine.

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Dr. H. L. Erwin, Dalton physician, was elected chairman of the Whitfield County Board of Health at an organization meeting for 1949, recently held at the Dalton-Whitfield Health Center. Dr. G. L. Broaddrick, Dalton, is also a member.

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Dr. F. M. Gay, Moultrie physician, discussed a Colquitt County blood bank being established jointly by physicians and Vereen Memorial Hospital, before the Moultrie Rotary Club. Dr. Gay said refrigeration units and other equipment are being installed to care for whole blood so that "when emergencies arise, transfusions may be given immediately to persons having any type of blood."

* * *

The Georgia Baptist Hospital Medical staff held its monthly meeting in the nurses' dining room, Atlanta, February 15. An interesting program was given—the discussion centering around a case of obstruction of the ureteropelvic junction. Dr. J. C. Blalock, Atlanta, secretary.

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The Georgia Medical Society held its monthly meeting at Candler Hospital Nurses Home, Savannah, January 11, but members expressed hope that the next meeting can be held at the medical society's building, 612 Drayton Street, which has been undergoing extensive remodeling for several months. Dr. Thomas A. McGoldrick, Jr., chairman of the committee on public policy and legislation of the Georgia Medical Society, discussed certain aspects of a bill, recently introduced into the State Legislature, to legalize the setting up in the State of a non-profit medical service plan. Officers for 1949 are Dr. John L. Elliott, president; Dr. H. M. Kandel, president-elect; Dr. Ralph O. Bowen, vice-president; Dr. Samuel Youngblood, Jr., secretary-treasurer; Dr. Anne Hopkins, historian. Delegate to the centennial session of the Medical Association of Georgia is Dr. John L. Elliott. Other delegates will be elected.

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Dr. D. B. Harrell, Tifton physician, has been installed as surgeon of William E. Wooten camp, United Spanish War Veterans, at Albany.

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Dr. E. H. Kalmon, Jr., Albany, recently took over as radiologist at Phoebe Putney Hospital, Albany, heading another of the reorganized departments which figure in the hospital's improvement and expansion program. Dr. Kalmon said approximately \$25,000 in new equipment had been authorized, and is on order, to facilitate the diagnostic and therapeutic work to be carried out under the reorganization plan. Dr. Kalmon returned to Albany from the Vanderbilt University Hospital, Nashville, Tenn., where he had been a member of the x-ray department since 1946. Prior to that time he had spent five years in the Army Air Force. He graduated from Vanderbilt Medical School in 1940 and interned for a year at the Vanderbilt University Hospital, Nashville, before entering military service in 1941.

* * *

Dr. G. Lombard Kelly, Augusta, dean of the University of Georgia School of Medicine, recently attended the annual meeting of the Congress on Medical Education held in Chicago. Plans for a survey of medical schools of Canada and the United States to be taken at an early date were discussed. The purpose of the survey is to evaluate the work being done by the various medical schools and to streamline and standardize courses. Dean Kelly said he did not know when the inspection of the University of Georgia School of Medicine will take place.

* * *

The Fulton County Medical Society held its semi-monthly dinner meeting at the Academy of Medicine, Atlanta, February 17. Scientific program: "Symposium

on the Treatment of Thyroid Conditions". Dr. Robert Carter Davis, moderator. The following papers were given: "Medical Management", Dr. Byron J. Hoffman; "Surgical Management", Dr. David Henry Poer; "Anti-Thyroid Drugs", Dr. George Lewis, and "Carcinoma", Dr. Joseph Canipelli.

* * *

Dr. Ruskin King, Savannah, was re-elected president of the Chatham-Savannah Health Council at the annual meeting held at the Health Center, 23 East Charlton St., Savannah, January 17. Dr. Robert Oliver was elected president-elect. Physicians named as trustees were: Dr. G. H. Lang and Dr. Anne Hopkins. Holding office as non-elective trustees by virtue of their positions are: Dr. C. A. Henderson, city-county health officer; Dr. Lawrence Lee, medical examiner of the city-county health board; Dr. John L. Elliott, president of the Georgia Medical Society, and Dr. H. F. Sharpley, Jr., immediate past president of the health council. Activities of the Chatham-Savannah Health Council were constantly broadened during 1948, the annual report shows.

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Dr. John R. Lewis, Jr., Atlanta, announces the opening of his offices for the practice of plastic surgery, 814 Doctors Building, 478 Peachtree St., N. E., Atlanta.

* * *

Dr. Bruce Logue, Atlanta, president of the Georgia Heart Association, recently spoke on rheumatic fever at an opening meeting at the First Presbyterian Church, Macon. Dr. Logue's talk was sponsored by the health committee of the Woman's Auxiliary to Bibb County Medical Society. Chairman of the committee is Mrs. John L. Hall, and Mrs. Tom Harrold is co-chairman. Mrs. Tom Ross, Jr., is program chairman. Dr. Logue is also cardiologist at Emory University, Grady Memorial and Lawson General hospitals, Atlanta. He is assistant professor of medicine at Emory University School of Medicine.

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Dr. W. C. Mitchell and Dr. C. M. Garland, Jr., Smyrna, announce the removal of their offices to the Mitchell Building, Smyrna, for the practice of medicine and surgery.

* * *

Dr. Harry Mixson, Valdosta physician, recently presented another in the series of cancer control radio programs over Station WGOV, Valdosta, entitled "The Iron That Never Cooled."

* * *

Dr. J. Eugene Morris, Moultrie, Colquitt-Brooks counties' health commissioner, recently told the Macon Kiwanis Club that insanitary conditions around numerous rural homes "are tremendously costly" to the economic and health status of Colquitt and Brooks counties. He gave numerous illustrations of illness and death in families as the result of "failure to practice normal and economical health practices."

* * *

Dr. Jack C. Norris, Atlanta, chairman, Cancer Commission of the Medical Association of Georgia, has submitted requests to all Georgia county medical societies for the appointment of three doctors to assist lay members of the Georgia Division of the American Cancer Society in the intensive cancer program. "Formation of cancer commissions within each county society will insure complete cooperative effort with local units of the American Cancer Society. While the cancer program covers all Georgia, it must be tied down to local levels," said Dr. Norris. The American Cancer Society's 1949 cancer control program in Georgia received the combined support of the Medical Association of Georgia and the Georgia Department of Public Health. Both groups announced plans to join the Georgia Division of the society in making the 1949 attack on cancer the strongest in Georgia history. Simultaneously, Dr. W. J. Murphy, director, Cancer Control Division, Georgia Department of Public Health, said all county health departments will actively support the American Cancer Society's program on the county plan.

Dr. M. Fernan-Nunez, Dublin, chief of laboratory service, Veterans Administration Hospital, lectured on "The Pathology of Tuberculosis" at the Warren A. Candler and at St. Joseph's hospitals, Savannah, January 31, under the auspices of the Chatham-Savannah Tuberculosis and Health Association. While in Savannah Dr. Nunez was guest speaker at the monthly meeting of the Exchange Club. His subject was "Socialized Medicine."

Dr. Nunez also spoke before the Dublin Rotary Club at its monthly meeting February 17, on "Political Medicine." He defended in principle the present voluntary system of medical service of the United States as against the compulsory health insurance proposed in the Wagner-Murray-Dingell bill. He pointed out the calamitous defects of the present socialized medical system of England, which he considered a blueprint of what could be expected under the proposed nationalization of medicine in the United States.

* * *

Dr. John E. Porter, Savannah physician, has been named president of the staff of St. Joseph's Hospital, Savannah, for 1949. Dr. Porter graduated from the University of Georgia School of Medicine, Augusta. He served his internship at St. Joseph's and has been with the hospital for several years.

* * *

Dr. Dave Quinn, Dublin, head of the Veterans Administration Hospital, spoke to the Fitzgerald Rotary Club, Fitzgerald, February 2. The subject of his address was "The Veteran's Administration Hospital at Dublin, the People and the Patients." In describing the hospital, which cost eight million dollars to construct, Dr. Quinn said "It is the finest in the U. S., possessing many items not found in ordinary hospitals. The operating room is the finest that could be made. The patients of this hospital receive the best care possible to administer."

* * *

Dr. J. A. Redfearn, Albany physician, and former president of the Medical Association of Georgia, was guest speaker at the monthly meeting of the Woman's Auxiliary to the Dougherty County Medical Society. Dr. Redfearn chose as his subject "Federalized Medicine." In his talk he emphasized that too few lay people have been told the entire story concerning the proposed bill which is being sponsored by Senators Murray and Wagner, and Representative Dingell.

* * *

Dr. Thomas L. Ross, Macon, chief of the cardiology department of the Macon Hospital, recently made a talk on "The Diseases of the Heart" at the meeting of the Macon Rotary Club. He gave three main causes of heart trouble: high blood pressure, rheumatic fever and hardening of the arteries. He said that during 1947 there were 486 deaths in Bibb County as the result of heart disease.

* * *

Dr. John W. Simmons, Brunswick, attended the Atlanta Graduate Medical Assembly, Atlanta, which was addressed by leading medical men of the nation. Among these was Dr. William Menninger, Topeka, Kan., widely known as a pioneer in the field of psychiatry.

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Dr. S. C. Rutland, Macon, director of the West Central Regional Office, Georgia Department of Public Health, recently held a two-day conference on nutrition in the city hall council chamber and the State Health Office Building, Macon.

* * *

The Tenth District Medical Society held its semi-annual meeting at the University Hospital, Augusta, February 17. Scientific program: "Surgical and Gynecologic Operative Clinics" by Drs. Sherman, Major, Torpin and staffs. "Medical Clinics: Cardiology, Diabetes and General Medicine" by Dr. V. P. Sydenstricker and staff. "Problems for the General Practitioner in the Treatment of Fractures, Illustrated" by Dr. Peter B. Wright. "Treatment of Functional Uterine Bleeding" by Dr. Robert B. Greenblatt. Business meeting. Dr. Edgar H. Greene, Atlanta, president of the Medical Association

of Georgia, was guest speaker, Dr. M. C. Adair, Washington, secretary-treasurer.

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The Upson County Medical Society held its monthly meeting at Thomaston, January 8. Officers for 1949 are Dr. J. M. Kellum, president; Dr. Wm. Pruitt Woodall, vice-president; Dr. Herbert D. Tyler, secretary-treasurer. Dr. R. L. Carter was named delegate to the centennial session of the Medical Association of Georgia, and Dr. John D. Blackburn was designated as alternate delegate. The guest speaker was Dr. C. C. Aven, Atlanta, who spoke on "The Threat of Socialized Medicine."

* * *

Dr. T. O. Vinson, Griffin, medical officer of the Tri-County Health Unit, recently spoke to the teachers of Lamar County at Barnesville, February 4. He explained the program to be conducted within the next few weeks throughout the county schools. Every child in the first grade is to receive a complete physical examination with psychologic test included.

* * *

Dr. J. Warren White, Greenville, S. C., recently addressed members of the hospital staff at Oliver General Hospital, Augusta. He also held an orthopedic clinic at the hospital. Dr. White spent eight weeks in Japan where he taught orthopedics and held orthopedic clinics in Yokohama and Tokyo. He related his experiences in the Orient in his address to the staff at Oliver General Hospital.

* * *

Dr. Paul White, Boston, one of the world's leading physicians in heart diseases, was recently in Augusta to inspect the University of Georgia School of Medicine. He visited the University Hospital also. The inspection is in connection with an application by the University of Georgia School of Medicine for a grant of funds to be used in a special program in cardiac research. Dr. White represented the United States Public Health service, through which the grant of funds would be made. He is on a tour of inspection to 17 schools in the country and will report later on facilities and suitability of these institutions for carrying on the type of work for which grants have been asked. Drs. V. P. Sydenstricker, W. F. Hamilton and G. Lombard Kelly were in conference with Dr. White.

* * *

The Southeastern Region of the Georgia Department of Public Health held a two-day "Nutrition Institute" in the Strickland Memorial Building of the First Methodist Church, Valdosta, January 14 and 15. Dr. H. T. Adkins, Waycross, Southeastern regional director of the Georgia Department of Public Health, presided. Physicians on the program were: Dr. Roy E. Butler, U. S. Public Health Service, New Orleans; Dr. Richard O. Cannon, Vanderbilt University, Nashville; Dr. Malcolm J. Ford, U. S. Public Health Service, Jacksonville; Dr. Walter Wilkins, Florida State Board of Health, Jacksonville and Dr. Guy V. Rice, Atlanta, director of maternal and child health division, Georgia Department of Public Health.

* * *

Dr. L. E. Williams, Cordele, dean of Georgia County Commissioners was re-elected chairman of the Crisp County Board of Commissioners at the first session of the new year. Dr. Williams has seen more years' service as a county commissioner and has been serving as third congressional district representative of the board of managers of the Georgia Commissioners Association. Dr. P. L. Williams, Cordele, was named county physician.

* * *

The Ware County Health Department presented an interesting program before the Waycross Kiwanis Club February 4. Dr. George E. Atwood, Waycross, Ware County health commissioner, was guest speaker and was introduced by Dr. W. C. Hafford, member of the Board of Health, who said Dr. Atwood was the best

health commissioner in the State. Dr. Atwood was recently written up in Collier's magazine as "doing a good job with funds for Ware County Health Department."

* * *

The Fulton County Medical Society held its dinner meeting at the Academy of Medicine, Atlanta, March 3. Scientific program: Dr. John D. Campbell, moderator, "Organic and Delirious Mental Reactions"; Dr. James Brawner, Jr.; "Management of Neuroses and Functional Psychoses"; Dr. Joseph Skobba; "Behaviour Difficulties in Children—Medical Aspects"; Dr. Paul Schroeder.

* * *

President Goodrich C. White of Emory University recently announced approval by the board of trustees of faculty appointments and promotions in the Emory Medical School.

Dr. Walter H. Sheldon was promoted from associate professor to professor of pathology, and chairman of the department of pathology. Dr. Sheldon is a former instructor in pathology, Harvard Medical School, and research associate in pathology, Boston Lying-in Hospital.

Dr. Evangeline Papageorge was promoted from assistant to associate professor of clinical medicine; Dr. Max Michael Jr., from associate in medicine to assistant professor of clinical medicine; Dr. Marion T. Benson, from instructor to associate in obstetrics and gynecology; Dr. John R. McCain from instructor to associate in obstetrics and gynecology; Dr. Thomas Harbin from assistant to instructor in clinical ophthalmology, and Dr. J. L. Morrison from assistant professor to associate professor of pharmacology.

Appointments are Dr. Charles A. Privitera as associate in clinical roentgenology, and as assistants: Dr. Guy H. Adams, Dr. Joseph A. Schwartz, Dr. John deR. Slade, Dr. Libero Ajello, Dr. George A. Niles, Jr., Dr. John M. Hood Ridley, Dr. Robert H. Stephenson, Dr. Clyde W. Whitworth, Dr. Donald E. Beard, Dr. William E. Goodyear, and Dr. Fenwick T. Nichols, Jr.

* * *

Publication of the national report on the findings of the recently completed 2½-year study of child health services will be marked by a dinner on April 2 in New York City, according to an announcement of Dr. Warren R. Sisson, President of the American Academy of Pediatrics. A nationally known layman as well as an outstanding authority in medicine and public health are being invited to be guest speakers. The two-volume report which is now in press is being published by the Commonwealth Fund of New York. Dr. Wm. W. Anderson, Atlanta, is chairman for Georgia of the American Academy of Pediatrics.

OBITUARY

Dr. William Abraham Bostick, aged 69, a member of the staff at Milledgeville State Hospital, Milledgeville, died of a heart attack February 3, 1949. A native of Camilla, Dr. Bostick graduated from the University of Georgia School of Medicine, Augusta, in 1924. He had been on the staff of the State Hospital, Milledgeville, for almost a quarter century, having joined April 1, 1925. At the time of his death he was senior assistant physician in charge of colored male reception service. He was a member of the Baldwin County Medical Society, the Medical Association of Georgia, and a fellow of the American Medical Association. Survivors include his wife, the former Miss Mabel McDonald; two daughters, Misses Mary Ann and Amelia Bostick, all of Milledgeville; two brothers, J. D. Bostick, Camilla, and C. D. Bostick, Tampa, Fla.; one sister, Mrs. T. B. Crosson, Thonotosassa, Fla. Funeral services were held at the First Presbyterian Church, Milledgeville. Dr. Kerr Taylor, pastor, officiated. Burial was in Chattahoochee, Fla.

* * *

Dr. Thomas Savage Clay, aged 81, prominent Savannah physician, died January 17, 1949. He was born in Savannah, the son of Thomas C. and Caroline Law Clay.

He graduated from the New York University College of Medicine, New York City, in 1899. As a physician, Dr. Clay had a practice that ran in several generations in numerous families, and for 35 years he was Atlantic Coast Line Railroad physician, a position he held until his death. He served in the medical corps of the Army in World War I, from which he was discharged as a major. A member of First Presbyterian Church, he held office in his church for many years and also preached in Presbyterian pulpits, notably at Bona Bella, until recent weeks. In 1939 he was elected moderator of the Savannah Presbytery of the Presbyterian Church. Surviving is his wife, the former Miss Anna Harden Burroughs of Savannah; three daughters, Mrs. James Pirtle, New York City, Mrs. A. B. Buttrill, Madison, and Mrs. Ellen H. Barrs, Savannah; two sisters and two grandchildren. Graveside services were conducted by the Rev. Charles J. Woodbridge, pastor of the Independent Presbyterian Church. Burial was in Bonaventure Cemetery, Savannah.

* * *

Dr. George Linton Touchton, aged 65, one of Savannah's most prominent physicians, died of a heart attack at his residence in the Forsyth Apartments, February 4, 1949. He graduated from the Atlanta School of Medicine in 1908, with honors. Dr. Touchton for a number of years practiced medicine in Douglas before moving to Savannah in the fall of 1920. He served as captain in the Army medical corps in World War I, and in World War II was chief medical examiner of Draft Board No. 2. He was former county physician and a member of Solomons Lodge No. 1, F. and A. M. He was a member of the Georgia Medical Society, having served as president; the Medical Association of Georgia, and a fellow of the American Medical Association. Survivors include his wife, Mrs. Madolin Mock Touchton; two sons, George L. Touchton, Jr., Valdosta, and Howard Touchton, overseas with the armed forces in Europe; two daughters, Mrs. Jennie Kennedy, Douglas, and Mrs. Parker Orr, Savannah; two sisters and a nephew. Funeral services were held at the chapel of Sipple's Mortuary with the Rev. John S. Wilder, D.D., pastor of Calvary Baptist Temple, officiating. The Georgia Medical Society served as an honorary escort. Burial was in Greenwich Section, Bonaventure Cemetery, Savannah.

COUNTIES REPORTING FOR 1949

Bartow County Medical Society

President—Wm. Harvey Howell, Cartersville
Vice-President—Wm. B. Quillian, Jr., Cartersville
Secretary-Treasurer—A. L. Horton, Cartersville

* * *

Bulloch-Caudler-Evans Medical Society

President—Frank B. Mitchell, Jr., Metter
Vice-President—W. E. Floyd, Statesboro
Secretary-Treasurer—R. L. Kennedy, Metter
Delegate—J. H. Whiteside, Statesboro
Alternate Delegate—W. E. Simmons, Metter
Censors: Louie H. Griffin, A. B. Daniel and W. E. Simmons

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Carroll-Douglas-Haralson Medical Society

President—C. H. Allen, Bremen
President-Elect—A. Steve Worthy, Carrollton
Vice-President—R. E. Hamilton, Douglasville
Secretary-Treasurer—Elwyn V. Patrick, Carrollton
Delegate—Wm. P. Downey, Tallapoosa
Alternate Delegate—O. D. King, Bremen
Censors—H. L. Barker, J. E. Powell and J. H. Pritchett, Jr.

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Clarke County Medical Society

President—H. B. Harris, Athens
Vice-President—James A. Green, Jr., Athens
Secretary-Treasurer—Goodloe Y. Erwin, Athens
Delegate—M. A. Hubert, Athens
Alternate Delegate—J. B. Neighbors, Jr., Athens
Censors—W. H. Cabaniss, DeWitt F. Mullins, Jr., and Sam M. Talmadge

Cobb County Medical Society

President Alfred Colquitt, Jr., Marietta
Vice-President—Wm. H. Benson, Jr., Marietta
Secretary-Treasurer—Elmer A. Musarra, Marietta
Delegate—Walter G. Crawley, Marietta
Alternate Delegate—R. W. Fowler, Marietta
Censors—G. F. Hagood, A. H. Fowler, and Luke G. Garrett, Jr.

* * *

Coffee County Medical Society

President—Sage Harper, Douglas
Vice-President—Bascom O. Quillian, Douglas
Secretary-Treasurer—Horace G. Joiner, Douglas
Delegate—Horace G. Joiner, Douglas
Alternate Delegate—Sage Harper, Douglas
Censor—Dan A. Jardine, Douglas

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Coweta County Medical Society

President—George P. Kinnard, Newnan
Vice-President—H. D. Meaders, Newnan
Secretary-Treasurer—G. W. Hammond, Newnan
Delegate—J. H. Arnold, Newnan
Alternate Delegate—Joseph W. Parks, Jr., Newnan

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Crisp County Medical Society

President—C. E. McArthur, Cordele
Secretary-Treasurer—O. T. Gower, Jr., Cordele
Delegate—P. L. Williams, Cordele
Alternate Delegate—C. E. McArthur, Cordele

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Fulton County Medical Society

President—Stephen T. Brown, Atlanta
President-Elect—A. O. Linch, Atlanta
Vice-President—F. Kells Boland, Jr., Atlanta
Secretary-Treasurer—A. Worthy Hobby, Atlanta
Delegates: Hal M. Davison, Stephen T. Brown, F. Kells Boland, Jr., A. Worth Hobby, Jack C. Norris, Eustace A. Allen, Wm. G. Hamm, Major F. Fowler, Shelley C. Davis, J. G. McDaniel and J. D. Martin, Jr.
Alternate Delegates: Alton V. Hallum, Edgar Boling, L. Minor Blackford, B. L. Shackleford, E. Van Buren, Herschel C. Crawford, David Henry Poer, Mark S. Dougherty, George W. Fuller, James J. Clark, Don F. Cathcart, A. H. Letton and J. S. Skobba.

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Habersham County Medical Society

President—J. L. Walker, Clarkesville
Vice-President—D. H. Garrison, Clarkesville
Secretary-Treasurer—Joe J. Arrendale, Cornelia
Delegate—Joe J. Arrendale, Cornelia
Alternate Delegate—B. J. Roberts, Cornelia
Censors—J. B. Jackson and T. H. Brabson

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Hart County Medical Society

President—George T. Harper, Dewy Rose
Secretary-Treasurer—Louis G. Caccioli, Hartwell

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Mitchell County Medical Society

President—J. G. Crovatt, Camilla
Vice-President—J. C. Brim, Pelham
Secretary-Treasurer—D. P. Belcher, Pelham
Delegate—M. W. Williams, Camilla
Alternate Delegate—C. L. Howard, Pelham

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Morgan County Medical Society

President—J. H. Nicholson, Madison
Secretary-Treasurer—W. C. McGahey, Madison
Delegate—W. C. McGahey, Madison
Alternate Delegate—J. H. Nicholson, Madison

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Muscogee County Medical Society

President—Roy L. Gibson, Columbus
Vice-President—Luther H. Wolff, Columbus
Secretary-Treasurer—Polk S. Land, Columbus

* * *

Newton County Medical Society

President—W. J. Huson, Covington
Secretary-Treasurer—Clarence B. Palmer, Covington

Delegate—J. R. Sams, Covington
 Alternate Delegate—S. L. Waites, Covington
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Upson County Medical Society

President—J. Morgan Kellum, Thomaston
 Vice-President—Wm. Pruitt Woodall, Thomaston
 Secretary-Treasurer—Herbert D. Tyler, Thomaston
 Delegate—R. L. Carter, Thomaston
 Alternate Delegate—John D. Blackburn, Thomaston
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Wayne County Medical Society

President—J. W. Yeomans, Jesup
 Vice-President—J. A. Leaphart, Jesup
 Secretary-Treasurer—Fred M. Harper, Jesup
 Delegate—Robert A. Pumelly, Jesup
 Alternate Delegate—Fred M. Harper, Jesup
 Censors—J. A. Leaphart and Una Ritch Yeomans
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Wilcox County Medical Society

President—J. A. Bussell, Rochelle
 Vice-President—S. B. Ellis, Pitts
 Secretary-Treasurer—J. D. Owens, Rochelle
 Delegate—J. M. Estes, Abbeville
 Censor—S. B. Ellis, Pitts

UROLOGIC POST-GRADUATE SEMINAR

The American Urological Association, through its Southeastern Section, announces a Urological Post-Graduate Seminar to be held in New Orleans, Louisiana, April 18, 19, 20, and 21, 1949. The seminar will be under the auspices of the Division of Graduate Medicine, Tulane University School of Medicine. William D. Frye, M.D., Dean of the Graduate School of Medicine, will be the director of these courses in collaboration with the officers and executive committee of the Southeastern Section and with the representative of the central committee.

The course is designed especially for young urologists, urologic residents, surgical interns especially interested in urology, and physicians and surgeons who do diagnostic urology (part-time). It will be of especial value to those preparing for the American Board of Urology, but will afford an excellent review for all urologists.

The seminar includes four full days, Monday, April 18, through Thursday, April 21, and will cover anatomy, embryology, pathology, physiology, biochemistry, endocrinology and bacteriology. The courses will be given by men who are experienced urologic teachers. They will present their subjects in an illustrated and attractive manner. Operative urological clinics will be provided on the various services of the hospitals for those who wish to stay over Friday, April 22.

The courses will be limited to 150 registrants. The cost will be \$50.00, except for urologic residents. Because of the great amount of interest already expressed by members in this section, an early application is recommended.

Address inquiries and applications to:

Wm. W. FRYE, M.D., Dean
 Graduate School of Medicine
 Tulane University,
 New Orleans.

AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY, INC.

The general oral and pathology examinations (Part II) for all candidates will be conducted at Chicago, Illinois, by the entire board from Sunday, May 8, through Saturday, May 14, 1949. The Hotel Shoreland in Chicago will be the headquarters for the board. Formal notice of the exact time of each candidate's examination will be sent him several weeks in advance of the examination dates. Hotel reservations may be made by writing direct to the Shoreland.

Candidates for re-examination in Part II must make written application to the Secretary's office not later than April 1, 1949.

Candidates in military or Naval Service are requested to keep the Secretary's office informed of any change

in address.

Applications are now being received for the 1950 examinations. Application forms and bulletins are sent upon request made to

AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY, Inc.
 1015 Highland Building, Pittsburgh 6, Pa.

THE SOUTHEASTERN SURGICAL CONGRESS

The Seventeenth Annual Assembly of The Southeastern Surgical Congress will be held in Biloxi, Mississippi, The Buena Vista Hotel, May 23, 24, 25, 26, 1949.

There will be 43 papers presented by distinguished surgeons from the South and throughout the country. This is a very comprehensive program and the medical profession would do well to take advantage of this opportunity to hear these men.

SOUTH ATLANTIC ASSOCIATION OF OBSTETRICIANS AND GYNECOLOGISTS

Rules Governing the Award of "The Foundation Prize"

1. The Foundation Prize shall be \$100.00.

2. Eligible contestants shall include interns, residents, and graduate students in obstetrics or gynecology or both, persons with an M.D. degree or a scientific degree approved by the Prize Award Committee who are actively practicing or teaching obstetrics or gynecology, or both or who are engaged in research in other fields of medicine whose principal objective is directly concerned with problems in obstetrics or gynecology or both; provided that no Fellow of this Association, Active, Emeritus, or Honorary shall be eligible.

3. Manuscripts must be presented to the Secretary of the Association under a nom-de-plume, which shall in no way reveal the author's identity. A sealed envelope bearing the nom-de-plume and containing a card bearing the name and address of the contestant must accompany each manuscript.

4. Manuscripts must be limited to 5,000 words and must be typewritten in double spacing on one side of the sheets. Ample margins should be provided. Illustrations should be limited to those required for a clear exposition of the thesis. Three copies of the manuscript and of the accompanying illustrations must be submitted to the Secretary of the Association by June 1 preceding the annual meeting in February.

5. The successful thesis shall become the property of the Association, but this provision shall not interfere with the publication of the communication in the Official Journal of the Association, or, failing that, in another Journal of the author's choice. Non-prize winning contributions will be returned to the authors promptly. No prize shall be awarded any year that the Prize Award Committee finds no thesis submitted worthy of it.

6. The award shall be made at the annual meeting of the Association, at which time the prize winner must appear in person at his own expense to present his contribution as a part of the regular scientific program in conformity with the rules of the Association. In the event that the successful candidate is ill and physically unable to appear in person at the time of the meeting, he may designate a substitute to present his paper. The substitute should preferably be someone who has participated in the observations upon which the study was based.

7. The President of the Association shall appoint annually a Committee on Awards, which, under its own regulations, shall determine the successful contestant and shall inform the Secretary of its choice at least two weeks before the succeeding annual meeting.

E. D. COLVIN, M.D.
 Secretary-Treasurer
 1259 Clifton Road, N. E.,
 Atlanta, Georgia.

DIABETES SEMINAR

In cooperation with the Department of Medicine of the Graduate School of the University of Florida and

the Clinical Society of the Duval County Diabetes Association, the U. S. Public Health Service will present a seminar on diabetes at the George Washington Hotel, Jacksonville, Florida, March 28 and 29, 1949. The speakers will be as follows:

Dr. Charles H. Best, co-discoverer of insulin; director of Banting and Best Department of Medical Research, University of Toronto; president of American Diabetes Association.

Dr. Elliott P. Joslin, medical director of Baker Clinic, Boston, Mass., author of the classic textbook on diabetes treatment.

Dr. Joseph H. Barach, professor of medicine in University of Pittsburgh; director of Falk Clinic; chairman of Metabolism and Endocrinology Study Section of the Research Grants Division of the National Institutes of Health.

Dr. John A. Reed, assistant clinical professor of medicine in George Washington University; attending physician and director of the Outpatient Department of George Washington University Hospital.

Detailed programs will be sent to secretaries of medical societies in the Southeastern states area at a later date. There will be no registration fees. Hotel reservations should be made through Dr. Malcolm J. Ford, Diabetes Demonstration Unit, Box 210, Jacksonville, Florida.

COMMUNICATIONS

Baltimore 5, Md., Feb. 23, 1949

The Editor:

As you know, the American Board of Preventive Medicine and Public Health, Incorporated, was approved by the Advisory Board for Medical Specialties and by the Council on Medical Education and Hospitals of the American Medical Association at their meeting on February 6. The American Board of Preventive Medicine and Public Health, Incorporated, therefore is prepared to accept applications for examination for certification in this specialty.

As indicated in the attached bulletin, the requirements for certification include general qualifications, such as moral and ethical standing in the profession, adequate training in medicine and internship in an approved hospital, and licensure to practice medicine in the United States. Eligibility for examination also requires that the applicant have special training and experience in preventive medicine and public health of at least six years following internship. This must include special academic training, or its equivalent, and field training or residency meeting the standards set up by the board.

Applications may also be received for the Founders Group who may be excused from examination. The By-Laws authorize a Founders Group made up of practitioners of preventive medicine and public health who have attained unquestioned eminence in the field. The Founders Group presumably will include persons having attained eminence as indicated by academic appointments at the level of professor or associate professor of eminence and responsibility for a period of not less than ten years in this field.

It would be appreciated if The Journal of the Medical Association of Georgia might carry an announcement of the creation of the American Board of Preventive Medicine and Public Health, Incorporated, and such information as might be of interest to its readers which is contained in the attached bulletin.

Sincerely yours,
 ERNEST L. STEBBINS, M.D.
 Secretary-Treasurer
 American Board of Preventive
 Medicine and Public Health, Inc.

HOW TO SECURE DOCTORS URGENTLY NEEDED IN RURAL GEORGIA

The Editor:

First of all reverse the trend of nearly all doctors

toward locating in the larger cities, through appealing financial plans in rural areas supported by voluntary insurance not only for hospital but also for medical fees. If these fees are inadequate to attract young doctors and persuade them to relocate, then through local communities, State or Federal supplemental salaries or subsidies are in order.

Another plan might be considered whereby our medical schools could be greatly enlarged, thus graduating more doctors, many of whom would have to locate in rural areas due to lack of funds. This doubtless is the main reason why the majority of doctors formerly located in the small towns where they anchored firmly due to the kind influences of many good citizens who wanted to help and be helped. Such doctors often became leaders in Georgia medicine.

This might bring about a reduction in time spent in colleges and hospitals with great advantage to all. A doctor was formerly brought into a community after "reading medicine" under a doctor for a few months. This plan seemed fairly satisfactory years ago. It now takes an average of ten years in colleges and hospitals to prepare a practitioner, male or female, to pursue the all inclusive art and science of the practice of medicine. Surely much has to be learned after location, regardless of time consumed in preparation. The public, if given the choice, would probably choose doctors in general practice who have had much more than a few months "reading", but perhaps three years less in colleges and hospitals who have kept studying eagerly through post-graduate courses and attending frequent medical meetings and participating in the discussions.

All doctors practice medicine for money because money is necessary for health and happiness for their families and for themselves. It also makes it possible for them to grow in knowledge and increase their spiritual horizons. There is nothing sordid, unfair or vulgar about this kind of money which brings good doctors who dispense health and happiness to rural children and their parents and relatives and friends.

If rural practice cannot be brought up to standard by the Medical Association, then by all means let us invite subsidies. We are using them now with satisfaction in public health, heart disease, cancer, tuberculosis, poliomyelitis, farm security, accidental surgery and orders from individuals and organizations.

If the first plan can be made to succeed, it may prove best in the long run. If it cannot, then the second or some other more desirable one may be put into effect without much delay. Surely we have marked time long enough in our snug satisfaction with the hope that the old way may be continued because we dislike changes. In this position we are clearly outlined in selfish attitudes. The welfare of our patients must come first if we desire to influence them in any progressive plan.

Public health doctors on adequate salaries are doing noble work, particularly in preventive medicine and through love of little children, are sometimes spending parts of their salaries supplementing inadequate appropriations. Many other noble doctors are needed to travel the Georgia roads and highways, using their skills among our good people. All they require is sufficient financial help which will open the way to unselfish service to the coming generations. Rapid progress toward solution of these problems are being made in most of our states. Let us bring Georgia up-to-date.

J. A. REDFEARN, M.D.

EMOTIONAL STRESS CAUSES MOST HEADACHES

Most headaches are caused by emotional stress, five New York physicians indicate in the January 22 issue of *The Journal of the American Medical Association*.

Three of the physicians—Arnold P. Friedman, of the Headache Clinic Section, Mental Hygiene Service, Veterans Administration, and Charles Brenner and Sid-

ney Carter, from the Division of Neuropsychiatry, Montefiore Hospital, and the College of Physicians and Surgeons, Columbia University—conducted special headache clinics. They found that headaches for which there is no apparent physical cause and headaches following head injuries were by far the most common among patients.

Treating 494 patients with headaches of these kinds, the three physicians found that 50 to 60 per cent responded favorably to almost any medicine given them, and nearly as well to placebos, harmless but ineffective substitutes for drugs.

Treatments used included psychotherapy, pain-relieving drugs, substances to constrict and dilate the blood vessels, vitamins and hormones.

Results of the study strongly suggest that the effectiveness of the medications was caused primarily by the patient's psychologic reaction to the treatment situation in general and to having received a "remedy" from the doctor, the article says, adding:

"Both types of headache probably are responses of the body to disturbing psychologic stress."

Robert M. Marcusen, M.D., and Harold G. Wolff, M.D., from the New York Hospital and the Departments of Medicine and Psychiatry, Cornell University Medical College, made a study of migraine headache.

The typical sufferer from migraine headache, they found, is ambitious and tends to be a perfectionist.

Describing the personality of persons suffering from migraine, the physicians say:

"They are tense driving persons who have found that doing more than and better than their fellows brings a good deal of satisfaction. However, this end is accomplished at a great cost in energy. They become resentful because they cannot keep up with the load which the world and themselves impose.

"The natural outcome is tension, fatigue, and exhaustion; in this setting headache makes its appearance. Rage, resentment, and frustration are often common denominators of the emotional derangement preceding an attack of migraine. However, dramatic events need not precede headache—many follow long periods of so-called routine living with slowly accumulating tension."

Although the doctor can make the migraine patient aware of the cost of such a way of life, the decision of what to do about it is the patient's, the physicians emphasize.

STUDY SMEAR TEST FOR DIAGNOSIS OF CANCER

Tumors of the digestive system cannot be diagnosed by the "smear test" alone in its present state of development, say four physicians from the departments of internal medicine and pathology, University Hospital, University of Michigan, Ann Arbor.

Writing in the January issue of *The Journal of the American Medical Association*, H. Marvin Pollard, M.D., Henry C. Bryant, M.D., Malcolm Block, M.D., and Winston C. Hall, M.D., report on a study of the method of cell study developed by Dr. G. N. Papanicolaou of the Cornell University Medical College, New York.

"In the present state of development this diagnostic method should not provide the exclusive basis for either the positive diagnosis or the positive exclusion of gastric tumor," they say, adding:

"The method is valueless except in the hands of an experienced and specially trained pathologist."

The physicians examined the cell structure of stomach contents of 278 patients with symptoms of gastrointestinal disturbance. In 59 per cent of all tests reported as positive the findings were confirmed by clinical and "conventional tissue" study. Findings in 85 per cent of the tests reported as negative were confirmed by other studies.

OVERWEIGHT INCREASES INCIDENCE OF DISEASES

Overweight is a serious menace to health because it appears to increase the incidence of many diseases, according to three Rochester, Minnesota, researchers.

Writing in the January 8 issue of *The Journal of the American Medical Association*, Clifford F. Gastineau, M.D., of the Mayo Foundation, and Edward H. Rynearson, M.D., and Alice Karslake Irmisch, M.S., of the Mayo Clinic, say that between the ages of 45 and 50 years, 25 pounds of excess weight results in an increase of 25 per cent in mortality.

"Greater degrees of overweight are a correspondingly greater hazard to life and health," they point out. "Overweight has been found to be associated with an increased incidence of high blood pressure, diabetes, cancer, heart disease, kidney disease, hardening of the arteries, liver disease, and varicose veins."

Emotions, training and habit "exert a considerable influence" in determining whether people overeat or undereat, they say, adding:

"Investigations of the lean and fat by a number of psychiatrists have suggested a strikingly high incidence of psychologic aberrations. The apparently increased incidence of neuroses in association with obesity or leanness may be open to some question, since most such investigations have not included psychiatric studies of persons of normal weight for control purposes."

"Glandular disorders are rarely a cause of either pronounced obesity or leanness."

"It is difficult to hazard a guess whether inheritance or environment exerts the greater influence on eating habits. If mother prides herself on setting a good table, if dad eats heartily and with obvious enjoyment, if the household attitude and feeling is that good food in generous quantities is the end and purpose of life, it is not surprising that an entire family may become obese without the mediation of heredity. Imitation of elders and attitudes acquired in childhood may govern eating habits in later life."

In general, the best way to get rid of excess weight is to eat less, the researchers indicate. Several medicines which have been used for reducing accomplish little, and massage, local applications of heat, and exercise have no effect on local deposits of fat, they say.

ACCIDENTS IN THE HOME

If more attention were directed to safety hazards, the great number of accidents in the home each year could be reduced. Maiming, severe crippling and even death, particularly in the young child, could be averted if parents watched more closely the simple things that cause accidents, the Educational Committee of the Illinois State Medical Society points out in a *Health Talk*.

Falls are responsible for the greatest number of tragedies. A staircase cluttered with toys or kitchen equipment is one menace. Small rugs on waxed floors slide when stepped on. Electric cords lying loosely on the floor trip the unobservant passerby. A wobbly chair used instead of a ladder often collapses under weight.

Electrical equipment is responsible for occasional death of many small children and even adults. Be sure all connections are tight and covered and that wire insulation is not broken or worn off. Electrocution often occurs when small wet hands touch an appliance, or poke into wallplugs. The hazard is great in the laundry or bathroom where a ground connection is accidentally established.

Poisons are common in the home in the form of roach powder, lye, antiseptics, cleaning fluid, moth balls, or the left-over stuff in the medicine cabinet. Keep them out of children's reach, and separate from food.

A child's natural curiosity should be encouraged, for that is one way he develops, but the parent must

guide his curiosity away from dangerous objects. Scissors, knives, razor blades and needles should be kept out of his reach. Wait till he is older before entrusting the youngster with too much responsibility in handling these objects.

Suffocation is a frequent cause of death in young children. Babies become entangled in soft pillows or bedding in their cribs or buggies.

The gas stove offers several dangers; asphyxiation by gas from a leaky burner, burns from the flare of an oven filled with gas, or blast injuries from explosions. Keep the burners clean and the keys working rather stiffly. When you light an oven, the doors should be kept open and the match lighted and ready before the fuel is turned on.

Unfortunately, many accidents to young children must be blamed on the parent. The mother who leaves the handle of a pot on the kitchen stove protruding over the edge of the stove instead of toward the back of the range is careless, for children grasp such handles and upset boiling kettles on themselves, sometimes fatally.

Education in safety should be started early in life. Babies like to put objects in their mouths. Marbles and other small toys should therefore be kept away from very small children. The older child should be taught to put his toys away. A marble or a toy may be the cause of a severe fall, not only for the child, but for the adult.

Every parent should be constantly alert to improve the safety of the home. Carpeting should be checked regularly for tears, handrails should be a part of every stairway; brooms, mops and other handle equipment should be stored in closets and not left standing in corners. A child should not be left alone in a bathtub, even for a moment. A small child can drown in shallow water.

Parents will be wise to remember that most deaths from accidents occur in children from one to fourteen years of age. With the very young, particularly, great care must be exercised to be ever vigilant to the danger of the child's curiosity.

Accidents can be prevented. Awareness and forethought and patient teaching will do much to keep happiness instead of tragedy in the home.

WANTED—House physician or intern for 110 bed general hospital—active surgical and obstetrical service with out-patient clinics. Approved ACS for patient care. Full maintenance and liberal salary. Apply Administrator, Floyd Hospital, Rome, Ga.

RADIOLOGISTS URGE CLOSER LOOKOUT FOR RARE DISEASE OF STOMACH

Two radiologists from the University of Louisville School of Medicine urged x-ray specialists today to be on a closer lookout for primary Hodgkin's disease of the stomach which medical literature shows is rarely diagnosed.

Only 23 cases have been reported to date and the two Louisville physicians—Everett L. Pirkey and Sava M. Roberts—believe that many cases of Hodgkin's disease of the stomach are diagnosed radiologically as extensive infiltrating cancer.

"In the absence of operation and autopsy," the doctors write in the current (January) issue of *Radiology*, "the true condition remains undiscovered." The Journal *Radiology* is published primarily for physicians who specialize in x-ray diagnosis and treatment.

In their article, the doctors said that of the total cases reported, approximately 16 were treated surgically with very favorable results.

"This indicates," the doctors wrote, "that if this disease can be diagnosed with the aid of x-rays, it should call for immediate extensive surgery. In other words, the presence of a very extensive lesion of the stomach, in some cases involving almost the entire organ, should not be a deterrent to radical surgery, in spite of the usual hopeless prognosis of extensive gastric cancer."

"In Hodgkin's disease, there is an involvement of the lymph nodes in which one or more of them are enlarged; something of the nature of cancer in which the masses grow at the expense of the rest of the body, finally causing weakness, anemia, loss of weight and other symptoms from the pressure of the enlarged glands on other structures."

The two Louisville radiologists believe that cases of Hodgkin's disease in the stomach seen from time to time are "diagnosed radiologically as cancer, with a hopeless prognosis, and the patients are sent home to die. As a result autopsies are not performed so that the true condition is never ascertained."

They explained to the x-ray specialists how they could more easily identify this disease, stating that the principal diagnostic criterion is the presence of polypoid-like masses along the course of the involved area of the stomach.

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HISTORY OF THE MEDICAL ASSOCIATION OF GEORGIA 1849-1880

The Journal of the Medical Association of Georgia for April, 1941, contains an important account of the founding of the Medical Association of the State of Georgia, written by Dr. Allen H. Bunce; and also photostatic copies of the proceedings of the organization meeting in Macon, March 20, 1849, and of the Constitution and By-Laws and Code of Ethics which were adopted. The name of the body was changed three times, finally becoming, in 1873, the Medical Association of Georgia.

Dr. Bunce names contemporary events and persons of the period by stating that in 1849 Victoria was Queen of England, Zachary Taylor sat in the White House, Winfield Scott had just defeated Santa Ana in a series of bloody battles, captured Mexico City, and acquired the territory now known as California, Utah and New Mexico. Gold had recently been discovered in California and the trek of the 100,000 "forty-niners" was at full tide. Webster, Clay, Calhoun, Stephen A. Douglas and Jefferson Davis were at the height of their heated debates in Washington. Crawford Long's discovery of surgical anesthesia in 1842 was first published in 1849 in the *Southern Medical and Surgical Journal* published in Augusta.

The population of Georgia was about 900,000, over half of whom were slaves; George W. Towns was Governor, and Milledgeville was the State capital. More railroad mileage existed in Georgia than in any other State in the Union; while Savan-

nah and Augusta were the oldest and largest centers of population, education and culture. Macon, the railroad center of the State, had a population of less than 5,000, and Atlanta was only a village, having been established as "Terminus" in 1845.

The Georgia Medical Society, of Savannah, one of the oldest in the United States, had been in operation since 1804, and other local societies were in existence, such as the Medical Society of Augusta, but the need was felt for a state organization. New Jersey had established the first state society (1788), while South Carolina was first in the South to have a similar body (1789). The Medical College of Georgia had been in existence since 1833 (first established as the Medical Institute of the State of Georgia, in 1828), and it was logical for this medical school, the only one in the State, to call a meeting for the organization of a State society. Augusta was first selected as the place of meeting, but at the suggestion of the Georgia Medical Society, Macon was chosen later, probably on account of its more central location. As showing the importance attached to the event, the three railroads of the State reduced the fare one-half for all physicians attending the convention. These roads were the Georgia; the "State road," now the Nashville, Chattanooga & St. Louis; and the Macon and Western, now the Central Railroad of Georgia.

The call for this memorable gathering of the physicians of Georgia was published in the February, 1849 issue of the *Southern Medical and Surgical Journal*, founded in Augusta in 1839 by Milton Antony, and declared:

"The notice is addressed to the physicians of the State of Georgia. In the organization of the meeting, each county should be called alphabetically and the representatives thus registered. We presume all regular practitioners in good standing, having a diploma or not, have been included in the call. But every one, even if he has a diploma, and we care not from what college, who is at present engaged in the practice of any exclusive or special system of medicine, ought to be excluded. Of this, however, the meeting will be fully competent to determine. There should be a registration of all the regular physicians of Georgia.

"Action should be taken at this meeting on the proceedings of the National Medical Association.

"Our indigenous medical Botany ought to be investigated.

"The general and rapidly increasing prescriptions by apothecaries and druggists ought, if possible, to be checked or prohibited.

"A legislative enactment prohibiting the sale or use of any nostrum, which has not the composition fully and accurately described accompanying it, deserves the consideration of the physicians of the State.

"The subjects of medical education, the lengthening the course of instruction in our Medical Colleges, the support of a Medical Journal, etc., etc., will of course claim a considerable part of the time of the convocation.

"The call of the convention in Macon during the progress of the course of lectures will of course prevent the Faculty of our College attending as a body, or all of us, as individuals; still a delegation will be sent to the meeting."

"Accordingly," wrote Dr. Bunce, "seventy-five physicians met in the Hall of the Tomichihichi Division, Sons of Temperance, in Macon on the morning of March 20, 1849, in pursuance of a call of the Medical College of the State of Georgia and the Georgia Medical Society of Savannah."

The convention resolved itself into the "Medical Society of the State of Georgia," and proceeded with the election of officers. The following were elected:

Lewis D. Ford, Augusta, President.

R. D. Arnold, Savannah, First Vice-President.

Thomas R. Lamar, Macon, Second Vice President.

James M. Green, Macon, Corresponding Secretary.

Charles T. Quintard, Macon, Recording Secretary.

S. W. Burney, Monroe County, Treasurer.

Delegates to the American Medical Association: Thomas Hoxey, T. F. Green, H. J. Ogilby, I. E. Dupree, E. L. Strohhecker, W. B. Stephens, and Robert Campbell. All the officers held the degree of Doctor of Medicine.

The following resolution, introduced by Dr. R. D. Arnold, was adopted, probably being the first time in the history of the State that attention was called to the importance of the registration of births, marriages and deaths:

"Whereas, it is important that evidence in cases of pedigree and descent should be perpetuated, for the purpose of a more easy enforcement of the rights of the people of this State; and whereas, statistical details of the diseases, births and deaths are important, alike to the political economist and the medical philosopher, and efforts to procure such information have been the object of legislation in every enlightened government; and whereas, the American Medical Association, representing the highest intelligence of the medical profession of the United States, has undertaken to obtain legislation on this subject in every State in the Union:

"Resolved, That this Society fully concur in the great importance of the subject, and this Society to earnestly

recommend to the General Assembly of the State of Georgia to pass a bill for the uniform Registration of Births, Marriages and Deaths occurring annually in the limits of the State.

"Resolved, That a certified copy of the above preamble and resolution be forwarded to the next session of the Legislature, to the existing Governor of the State and to the President of the Senate and the Speaker of the House of Representatives."

Macon was chosen for the meeting place of the Society in 1850, and the secretaries were authorized to have printed 500 copies of a pamphlet containing the Proceedings of the convention, the Constitution and By-Laws and also the Code of Ethics adopted.

The Code of Ethics had been first adopted in 1846 by the National Medical Convention. The Introduction, written by Dr. John Bell, was couched in language such as few could use today, as when it said: "Medical Ethics, as a branch of general ethics, must rest on the basis of religion and morality. They comprise not only the duties, but also the rights of a physician; and, in this sense, they are identical with Medical Deontology—a term introduced by a late writer, who has taken the most comprehensive view of the subject. In framing a code on this basis, we have the inestimable advantage of deducing its rules from the conduct of the many eminent physicians who have adorned the profession by their learning and their piety. From the age of Hippocrates to the present time the annals of every civilized people contain abundant evidences of the devotedness of medical men to the relief of their fellow-creatures from pain and disease, regardless of the privation and danger, and not seldom obloquy, encountered in return; a sense of ethical obligations rising superior, in their minds, to consideration of personal advancement. Well and truly was it said by one of the most learned men of the last century, that the duties of a physician were never more beautifully exemplified than in the conduct of Hippocrates, nor more eloquently described than in his writings."

The whole article abounded in language of this type, dealing in generalities rather

than giving specific rules for the practice of ethical medicine. Especially emphasized was the avoidance of the use and advocacy of advertised secret nostrums and countenancing the activities of quack healers. Newspapers and ministers of the Gospel were particularly blamed for their support of such evils.

The Proceedings of the organization meeting of the Society, with a copy of the Constitution and Introduction to the Code of Ethics were published in Macon in 1849 by S. Rose & Co., and the photostatic copies were taken from this pamphlet. Short accounts of the meetings from this time until 1861 were published in the *Southern Medical and Surgical Journal*. The report of the 1861 meeting appeared also in the *Atlanta Medical and Surgical Journal*, which also published accounts of the other conventions of the sixties. After 1861 the Society did not meet again until 1866. From the Army Medical Library were obtained photostatic copies of the Proceedings of 1851-52, 1853-54, 1854-55 and 1867-68.

First Meeting, 1850

The organization meeting of the Georgia State Medical Society, in all records, is not considered the first meeting. The gathering of April 10, 1850, in Macon, is called the first meeting, of which the following report is found in the *Southern Medical and Surgical Journal* (Vol. 6, May 1850, pp. 317-318):

Medical Society of the State of Georgia. An accident which happened on the Macon Railroad prevented the attendance of our delegates at the late meeting of the State Society. But we have been favored with an account of some of the proceedings in the following letter from the Recording Secretary, Dr. Nottingham:

Macon, Ga., April 18th, 1850.

Dr. I. P. Garvin, Editor,

Dear Sir: Pursuant to a resolution adopted at the last annual meeting, the Medical Society of the State of Georgia assembled in Macon, on Wednesday, the 10th inst., and continued in session for two days. The meeting, although not a full one, was sufficiently numerous for the transaction of business. Many important subjects connected with the advancement and elevation of the profession were deliberated upon in a spirit of harmony, high tones feeling and liberal sentiment, that augers well for the future usefulness of the institution.

The officers elected for the present year were:
Charles West, M.D., Houston County, President.

R. D. Arnold, M.D., Chatham County, 1st Vice President.

I. E. Dupree, M.D., Twiggs County, 2nd Vice President.

J. M. Green, M.D., Bibb County, Corresponding Secretary.

C. B. Nottingham, M.D., Bibb County, Recording Secretary.

S. W. Burney, M.D., Monroe County, Treasurer.

The following gentlemen were duly chosen to represent the Society at the next meeting of the American Medical Association, which will convene in Cincinnati on the second Tuesday in May, viz: L. D. Ford, Richmond County; W. M. Frazier, Pulaski County; I. E. Dupree, Twiggs County; T. F. Green, Baldwin County; Charles Thompson, Bibb; T. L. Rives, Troup County; J. N. Simmons, Butts County; R. L. Roddey, Monroe County; J. H. Oliver, Laurens County.

A number of committees, composed of much of the medical talent of the State, were appointed to prepare Essays and Reports upon various subjects pertaining to medical science, to be presented at the next meeting of the Society, to be held in Atlanta. Dr. Arnold, of Chat-ham, with Dr. LeConte, of Bibb, as his alternate, was elected as Orator of the occasion.

A summary of the Proceedings will be published in pamphlet form at as early a day as practicable (Such a pamphlet has not been found).

Very respectfully,

C. B. NOTTINGHAM.

Second Meeting, 1851

From the photostatic copy of the minutes of the Proceedings of the second meeting, held in Atlanta, obtained from the Army Medical Library, it is learned that ten members were present, with Charles West presiding. Fifteen new members were elected, and Richard D. Arnold, of Savannah, was chosen President, and Charles C. Quintard, of Roswell, Corresponding Secretary, with C. B. Nottingham, of Macon, Recording Secretary. Standing committees were appointed on Medicine, Surgery, Obstetrics and Hygiene and "Indigenous Botany".

Members were requested to report to the Society the names of those persons who were practicing medicine in violation of the existing laws of the State. The names of 112 physicians were published as members of the Society. The pages of the Proceedings were devoted mainly to the interesting Oration of Dr. Arnold.

Third Meeting, 1852

Although it was announced that the Transactions of the third annual meeting were published, no copy of such Transactions has been found. From the *Southern*

Medical and Surgical Journal (Vol. 8, 1852, pp. 320), it was discovered that Alexander Means, of Oxford, was elected President at this meeting, which was held in Augusta. D. C. O'Keffe, of Penfield, became Recording Secretary, and G. F. Cooper, of Perry, Corresponding Secretary.

It became the custom from time to time to admit to membership various local societies which at that period took the place of future county organizations. Such bodies were known as Auxiliary Societies. In 1852 the Southwestern Medical Society of Georgia, the DeKalb Auxiliary Medical Society and the Medical Society of Greene County were so admitted.

The programs of the meetings of the Medical Society of the State of Georgia in these formative years appeared to be devoted more to elections and reading the reports of committees rather than discussing medical subjects, a condition which became remedied in later years by the establishment of the House of Delegates to care for all matters not of a medical or scientific nature. At this meeting G. F. Cooper read an instructive paper on "Health Statistics," based upon data obtained from the United States census.

It was during this convention that Crawford W. Long, of Athens, read his paper on the "Discovery of Anesthesia," which had been published in the *Southern Medical and Surgical Journal*, December, 1849, seven years after the discovery.

A resolution was adopted to assess each member of the Society \$2.00 to defray the expenses of publication of the Transactions, copies of which would be withheld from members who failed to remit their assessment.

Fourth Meeting, 1853

From the published Transactions of this meeting (100 pages) which was held in Savannah, it was learned that 20 members were present, and 12 new members were

elected. Alexander Means, the President, was absent, the reason not being given. Transportation was not as easy in those days as it is today, so that absences were common. It is noteworthy that the distinguished Dr. Means was again chosen President in 1866, at the first meeting held after the War, in Atlanta. P. M. Kollock, of Savannah, was elected President for 1853-1854; W. N. King, Corresponding Secretary, and D. C. O'Keffe, Recording Secretary. Fifteen delegates were voted to attend the meeting of the American Medical Association. Members of the press of the city were invited to take seats within the Hall during the proceedings.

A resolution was adopted urging the Legislature to enact a law to exempt members of the Society from jury duty, and except in times of actual war to exempt them from the military service. A report was read on the existing laws of Georgia relating to the practice of medicine and to the sale of drugs. Only the following persons would be allowed to practice medicine: 1. Licensees of a medical board; 2. Graduates of a medical college; and 3. Those engaged in practice in the State before 1839.

Several interesting papers were read, one by L. A. Dugas on "The Best Plan of Treating Fractures in Country Practice." Dr. Dugas was famous for his sign in diagnosing dislocations of the shoulder joint. He objected to the roller bandage on account of the danger of causing gangrene. A resolution was adopted declaring Crawford W. Long to be the first person to use sulphuric ether as an anesthetic. Glowing obituaries were read paying tribute to two distinguished physicians of the State, Ambroise Baber, of Macon, and William R. Waring, of Savannah. The Anniversary Address was made by Juriah Harris, of Augusta.

Fifth Meeting, 1854

Fifteen members were present at the meeting held in Macon, and the following

officers elected for 1854-1855: R. Q. Dickinson, Albany, President; G. F. Cooper, Corresponding Secretary; D. C. O'Keffe, Recording Secretary: A revised Constitution and By-Laws was reported to have been printed.

L. A. Dugas read a paper on the "Relative Value of Lithotomy and Lithotripsy", and J. A. Eve reported on the "Use of Chloroform in Obstetrics and Gynecology." Apparently a limited number of men did most of the writing and speaking for the meetings of the Society. At this time these two members probably were the best known surgeons in Georgia, but they were slow to give credit to young Crawford Long for his epochal contribution to medicine. Dugas was a prominent advocate of mesmerism as an anesthetic agent.

Malaria, typhoid fever, dysentery, cholera morbus, milk fever and Norwood's tincture of veratrum were discussed at length by various members. Several essays which had been assigned for presentation were not read, but appeared later in the *Southern Medical and Surgical Journal*. The Treasurer reported a balance of \$29.47 in the treasury. (*Southern Medical and Surgical Journal*, New Series, vol. 10, 1854, pp. 376-384.)

Sixth Meeting, 1855

This meeting was held in Columbus, with President Dickinson in the chair. The Treasurer now reported \$82.51 in the treasury. J. A. Eve read a paper on "Diseases of the Cervix Uteri," while R. D. Arnold discussed "Remittent and Yellow Fevers". The following resolution was adopted: That the publication of the Transactions of this Society, in separate form, be hereafter dispensed with, and in lieu thereof such matters as it may be decided to publish be furnished to the *Southern Medical and Surgical Journal* for its pages.

Officers chosen for 1855-1856 were: L. A. Dugas, President; D. C. O'Keffe, Recording

Secretary; F. C. Ellison, Corresponding Secretary. (*Southern Medical and Surgical Journal*, N. S. vol. 11, 1855, pp. 384-387.)

Seventh Meeting, 1856

This convention occurred in Macon, with 18 members present, L. A. Dugas presiding. Evidently the fortunes of the Society were at a low ebb, as the condition of the treasury and the poor attendance at the annual meetings indicated. Also the following note appeared in the *Southern Medical and Surgical Journal* (N. S. vol. 13, 1857, pp. 187-188): "The Society, wishing to remove all obstacles, however trivial, to full attendance, has judiciously arranged to have all its affairs managed without the expenditure of money (their Transactions are published in this JOURNAL), and therefore even the initiation fee is abolished." Did the thought of probable approaching war thus disturb the operation of the Medical Society?

Ira E. Dupree, of Twiggs County, was elected President, the other officers remaining as before. Subjects were assigned for the next meeting. (*Southern Medical and Surgical Journal*, N. S. vol. 12, 1856, pp. 318-320.)

Eighth Meeting, 1857

Augusta entertained this gathering, with almost the smallest attendance in the history of the organization, 14. The most the Society seemed to accomplish was to meet, elect officers, and adjourn. S. W. Burney was made President for the next year; Eben Hillyer was elected Recording and Corresponding Secretary, and delegates were chosen to attend the meeting of the American Medical Association.

On motion for the benefit of new members, the Secretary was required to read the Constitution and Amendments of the Society, and the *Southern Medical and Surgical Journal* was required (?) to publish the same in its pages. (*Southern Medical and Surgical Journal*, N. S. vol. 13, 1857, pp. 317-320.)

Ninth Meeting, 1858

The attendance increased to 19 members at this meeting, in Madison. J. P. Logan, of Atlanta, was elected President, and Eben Hillyer, Secretary and Treasurer, the first time the two offices were given to one incumbent. At this session it was decided to allow essayists to select their own subjects for discussion, instead of having subjects assigned to them. The Savannah Medical College presented a letter asking the Society to concur in a movement having for its object the passage of a law by the Legislature legalizing dissection for the purposes of medical and surgical studies. J. G. Westmoreland moved that 200 copies of the Constitution and By-Laws, roll of members, etc., be ordered to be published in pamphlet form for distribution among the members of the Society. (*Southern Medical and Surgical Journal*, N. S. vol. 14, 1858, pp. 353-357.)

Tenth Meeting, 1859

This meeting was held in Atlanta. Francis S. Colley was elected President for 1859-1860. Dr. H. F. Campbell, of Augusta, presented to the Society for distribution among its members a supplement to the *Southern Medical and Surgical Journal* containing, besides some very interesting editorial and select matter, the history, Constitution and By-Laws of the Society.

Dr. Alexander Means, after a few appropriate remarks (which are not given), introduced the following resolution, which was unanimously adopted: Resolved, That the name of the Society be altered from the Medical Society of the State of Georgia to the MEDICAL ASSOCIATION OF GEORGIA.

Dr. Campbell then proposed that the *Southern Medical and Surgical Journal* be no longer considered the exclusive organ of the Association and all the medical publications of the State be requested to publish the Proceedings. Hereafter when essays are read before the Association, the authors of

such essays would have the privilege of selecting the journal in which their essay is to be published. This proposition was accepted and the *Southern Medical and Surgical Journal* was thanked for publishing for so many years the Proceedings of the Society without cost or charge. (*Southern Medical and Surgical Journal*, N. S. vol. 15, 1859, pp. 352-357.)

Eleventh Meeting, 1860

Any report of this meeting, held in Rome, is very meager. Both the *Southern Medical and Surgical Journal* and the *Atlanta Medical and Surgical Journal* announced that the meeting would be held. The attendance must have been small. H. Coe, of Atlanta, was elected President, and A. G. Thomas, of Atlanta, was elected Secretary and Treasurer, and that is all.

Twelfth Meeting, 1861

This was an historic event, which occurred in Atlanta, a city of strategic military importance, to be destroyed three years later. It is regretted that any report of the day did not include more details of the feelings and sentiment of the handful of members in attendance during such exciting times. The date was April 10, 1861, and Fort Sumter was fired upon two days later. However, the Transactions of the annual meeting did contain one outburst of oratory by the eloquent Alexander Means, who concluded his address with: "May the loved land that gave us birth and whose mellow skies now overspan us, be hailed by our posterity as it is now hailed by us, an integral part of this great Confederacy, a blushing beauty among the sisterhood of states, that shall nestle under the Aegis of our incomparable Constitution, with her resources developed, her prowess expanded, and her glory unshorn."

Then came practical action in a Resolution introduced by J. P. Logan, of Atlanta, which was adopted unanimously by a rising vote: "Resolved, That this Association will

no longer be represented in the American Medical Association, and that it hereby declares its complete and final separation from that body." Other State Associations were notified of this action, and the idea suggested organizing a Southern Medical Association.

The meeting adjourned to convene again the second Wednesday in April, 1862, an event which failed to materialize. (*Atlanta Medical and Surgical Journal*, vol. 6, May 1861, pp. 529-538.)

Seventeenth Meeting, 1866

Strictly speaking, this meeting was the thirteenth, since the Association did not assemble for the four war years of 1862, 1863, 1864 and 1865. Had these conventions occurred the meeting of 1866 would have been the seventeenth, and that is what it is called.

The City Hall of Atlanta, recently evacuated as one of "Sherman's Headquarters" during his occupation of the city, was the place of the meeting of one day, June 21, 1866, with the President, J. T. Banks, of Griffin, in the chair. It is remarkable that a city so lately laid low by shell and fire should have been selected for the event. The well-known minister, Dr. Tucker, gave the invocation, which indeed could have been fervent in gratitude at such a time. The Secretary being absent, R. C. Word was chosen Secretary *pro tem*.

On motion of W. F. Westmoreland (the elder), the Secretary was required to compile a list of all the members in attendance at the annual meetings from 1858 to 1861 (the books of the Association having been destroyed in the destruction of Atlanta) and report the same to this body at the afternoon session.

The following 19 members reported and had their names recorded: J. T. Banks, J. F. Alexander, T. S. Powell, A. Means, W. C. Moore, E. J. Roach, J. M. Boring, W. F. Westmoreland, Eben Hillyer, F. O.

Danielly, J. C. Habersham, J. G. Westmoreland, J. P. Logan, R. C. Word, H. L. Wilson, George C. Crawford, E. L. Connally, D. H. Connally and D. C. O'Keffe. The names of L. H. Orme, J. E. Godfrey, W. L. Armstrong, C. L. Redwine, H. L. Orme, D. W. Delbridge, B. M. Cromwell, J. L. Moore, J. E. H. Ware, W. C. Askin, Charles Pinckney, W. A. Love, S. H. Stout, R. C. Stacey and J. M. Johnson were added to the roll, making a total of 34 members in attendance.

Officers for the ensuing twelve months were elected as follows: A. Means, President (second term); F. E. Danielly, Vice President; L. H. Orme, Recording Secretary; J. L. Moore, Corresponding Secretary; H. L. Wilson, Treasurer. An assessment of one dollar was imposed on each member to defray current expenses for the next year.

J. C. Habersham, of Savannah, reported the Georgia Medical Society of that city in a flourishing condition; W. F. Westmoreland reported the same for the Atlanta Medical Society. Asa W. Griggs spoke of the objects and progress of the Georgia and Alabama Medical Association, at West Point, Georgia. (Was this a forerunner of Dr. W. J. Love's Chattahoochee Valley Medical Association, of many years later?) George G. Crawford reported the requirements and progress of the Fulton County Medical Society, showing that there were two medical bodies in Atlanta.

F. O. Danielly entertained the Association for a short time on the subject of artificial limbs, the only address of a scientific nature recorded for the entire meeting, but a very pertinent matter at that time. A committee was appointed to prepare biographic data on members who had passed away since the last meeting. One hundred dollars in prizes was offered for the best essays, E. L. Gaillard having won a previously offered prize of \$50 for his "Essay on Diphtheria", to be published as soon as

funds became available.

On motion for adjournment, the new President, Dr. Means, after making some touching allusions to our separation, and eloquent appeals in behalf of the honorable cause in which we were engaged, adjourned the session to the next annual meeting in Griffin, on the second Wednesday in April, 1867. (*Atlanta Medical and Surgical Journal*, vol. 7, 1866-67, pp. 230-235.)

Eighteenth Meeting, 1867

By the attendance and interest shown, this meeting in Griffin indicated that the Association was recovering from the disaster of war. Forty-eight members were present, and two days were required to complete the program. Alexander Means occupied the President's chair. Officers chosen for the succeeding year were as follows: W. M. Charters, of Savannah, President; T. S. Powell, of Atlanta, and DeSaussure Ford, of Augusta, Vice Presidents; L. H. Orme, Recording Secretary; R. P. Myers, of Savannah, Corresponding Secretary; J. D. Fish, of Savannah, Treasurer.

A resolution was introduced to exclude as members of the Association persons who held no degree as Doctor of Medicine, but no action was taken in the matter. A paper was read by Wm. P. Holt, of Macon, on "Persistent Eclampsia: forced delivery accomplished by bilateral incision of the cervix uteri", and was discussed at length by several members. Many other resolutions were adopted thanking one another for kind acts, but there was no further discussion of medical subjects. (From photostat copy from the Army Medical Library, of the *Atlanta Medical and Surgical Journal*, N. S., vol. 8, No. 4, June 1867, pp. 131-152.)

Nineteenth Meeting, 1868

The report of this meeting, held in Augusta, is found in the Transactions of the Association, published in Augusta in 1868. Forty members were in attendance, includ-

ing 22 new ones. The following local societies made reports through their delegates: Georgia Medical Association; Fulton County Medical Society; Macon Medical Society; Georgia Medical Society, Savannah; and the Medical Society of Augusta. Several of these bodies represented county medical societies yet to be formed.

The Association failed to adopt a resolution offered by the Atlanta Medical College authorizing it to "grant the degree of M.D. because the proposed charter conferred unusual and extraordinary powers upon the Faculty to confer the degree of M.D. on persons, regardless of time or condition, save as such Faculty may see fit and proper."

The following committees were appointed: Publication; Chemistry and Collateral Sciences; Anatomy, Physiology, Pathology and Surgery; Practice of Medicine; Medical Education; Prize Essays; Medical Literature; Climatology and Epidemic Diseases; Necrology. As was customary in these times, a resolution was adopted thanking the railroads of the State for their accommodation to members in passing them on their roads for half fare.

A Revised Constitution and By-Laws allowed each local Society "the privilege of sending to the Association one delegate for every ten of its ten regular resident members, and one for every additional fraction of more than half this number. The faculty of every regularly constituted medical college, or chartered school of medicine, shall have the privilege of sending two delegates. The professional staff of every chartered or municipal hospital containing 100 inmates, or more, shall have the privilege of sending two delegates, and every other permanently organized medical institution of good standing, shall have the privilege of sending one delegate."

The name of the organization which was now the Medical Association of Georgia,

was changed at this meeting to the Georgia Medical Association.

Funds were to be obtained by an equal assessment of not more than \$5.00 annually, never with a view of creating a permanent income from investment. The sections of the Association at this time were: 1. Chemistry and Materia Medica; 2. Practical Medicine and Obstetrics; 3. Surgery and Anatomy; 4. Meteorology, Medical Topography and Epidemic Diseases; 5. Medical Jurisprudence, Hygiene and Physiology; 6. Psychology.

L. A. Dugas was elected President for the 1869 meeting (second term); L. H. Orme, Recording Secretary; J. S. Baxley, Corresponding Secretary.

Twentieth Meeting, 1869

This meeting, as reported in the Transactions, took place in Savannah. The controversy between the Faculty of the Atlanta Medical College and "certain members" of the Medical Association, begun in 1866, continued unabated during this meeting, and continued until 1871. The story is told in "A Statement of Facts Concerning the Controversy Between the Faculty of the Atlanta Medical College and Certain Members of the Medical Association of Georgia," published in the *Atlanta Medical and Surgical Journal*, May 1871, and must be read to thoroughly understand the situation.

During the five years of the heated discussions, the "certain members" referred to conducted a rival organization, the first Fulton County Medical Society, the minutes of which were only discovered sixty years later in the archives of the present society of the same name. These minutes, however, fail to present the side of those who were antagonistic to the members of the faculty of the medical school. No answer to the "Statement of Facts" appears in any subsequent issue of the *Journal*, so it is inferred that this recital is correct and met with the approval of the parties concerned, espe-

cially since harmony soon followed and the two societies consolidated the next year, 1872, under the significant designation of the *Atlanta Medical and Surgical Union*. Before this happy termination of the fight, however, the zeal of the enemies of the medical school was so effective that in 1870, at the meeting in Macon, the names of the faculty members were stricken from the roll, for alleged unethical conduct. However, they were all reinstated the next year at the annual meeting in Americus.

C. B. Nottingham, of Macon, was elected the next President; L. H. Orme, Recording Secretary, and J. S. Baxley, Corresponding Secretary. There was a report on the "Relation of Charlatans and Their Nostrums to Legitimate Medicine." Certain prominent members of the Association were condemned for endorsing patent medicines. J. G. Thomas read a paper on "The Importance of the Clinical Thermometer to the Physician in Daily Practice." The thermometer the doctor used in "Gone With the Wind", of this period, was said to be about one foot long, and required ten minutes to register.

Twenty First Meeting, 1870

At this session, in Macon, the Association adopted the Code of Ethics of the American Medical Association. A list of members from 1849 to 1870, as published in the Transactions, numbered 313. Among these appeared the name of Crawford W. Long. H. F. Campbell, of Augusta, a future President of the A. M. A., was elected President.

Twenty Second Meeting, 1871

This assemblage, in Americus, was marked by more discussion of the Faculty of the Atlanta Medical College, the Transactions for the year being filled with the matter. Thirty new members were elected. George H. McDowell, of Barnesville, was chosen President for 1872-73; E. J. Kircksey, of Columbus, and W. A. Greene, of Americus, Vice Presidents; Permanent Secretary, S. H. Stout, of Atlanta; W. O'Daniel,

of Twiggs County, Treasurer. W. A. Greene presented an exhaustive paper on "Hypodermic Medication."

Twenty Third Meeting, 1872

Columbus was host of this meeting, with more than 130 members present, probably the largest number in the history of the Association up to this time. A great many committees reported, and many resolutions were read and voted on, showing the increasing urge for a House of Delegates. However, more papers were read than ever before.

Robert Battey, of Rome, Carlisle Terry and F. A. Stanford, of Columbus, each reported several surgical cases. C. B. Nottingham discussed "Bony Tumor and Ovariotomy." J. Stainback Wilson, of Atlanta, read a paper on "Parturition Not Necessarily a Painful Process." "Bromide of Potash" and "Muriated Tincture of Iron" were the titles of the essays read by K. P. Moore, of Knoxville, Georgia, and W. F. Westmoreland, Atlanta, respectively. V. H. Taliaferro, of Columbus, read a paper on "Uterine Cloth Tents."

Dr. Shaffer, of Lawrenceville, exhibited an instrument of his invention, the Uterine Scoop, for removal of foreign bodies from the uterus and also one for the removal of bodies from the esophagus. A. W. Griggs described an instrument which he had improvised of wire, for the removal of the placenta after abortion. J. T. Jelks, of Marietta, referred to the action of quinine on the uterus, as illustrated in a case in which it succeeded after ergot had failed to produce contractions. C. D. Smith, of Newnan, told of a case of puerperal convulsions relieved by copious venesections. Drs. Stout, Griggs and others participated, and earnestly advocated such treatment. Dr. DeCortes, of Savannah, recommended the use of chloroform as abrogating the necessity for the lancet.

A resolution was adopted calling for a gathering of the medical officers of the Confederate Army and Navy to devise some means for preserving and publishing to the world the results of their professional experiences during the late War Between the States.

Officers selected for the next year were: G. W. Holmes, of Rome, President; Juriah Harris, of Savannah, and A. W. Griggs, of West Point, Vice Presidents; W. C. Musgrove, of Burke County, Secretary; and W. O'Daniel, of Twiggs County, Treasurer. Interesting and instructive presidential addresses were heard at all these annual meetings. It is regretted that space does not permit their publication. Most of the papers read at this meeting were produced in the Transactions, including the Annual Oration. The new Constitution and By-Laws of the "Georgia Medical Association" also appeared, with a list of members, and their addresses.

Twenty Fourth Meeting, 1873

The first act of this meeting, which convened in Atlanta, was to adopt the new Constitution and By-Laws, with amendments, one of which was to change the name again to the "MEDICAL ASSOCIATION OF GEORGIA." Many enjoyable entertainments were afforded the visiting doctors and their wives. One announcement read: "On Friday afternoon a complimentary drive will be given to the members of the Association: starting at the Capitol at four o'clock they will visit the famous Ponce de Leon and Healing Springs, and other interesting points in and around the city." And another: "Evening receptions complimentary to the Association, by Governor and Mrs. James M. Smith at the Executive Mansion on Peachtree Street; Mr. and Mrs. A. Leyden, at their residence on Peachtree Street; and Dr. and Mrs. W. F. Westmoreland, on Marietta Street."

Robert Battey presented a lengthy dis-

course on "Normal Ovariectomy," a subject for which he became famous. His introduction is interesting: "Since our last convocation, in the city of Columbus, I have felt it to be my duty to enter the Domain of Surgery, and carve out for myself a new pathway through consecrated ground, upon which the foot of man has not dared wittingly to trod. I doubt not that it is known to you that I have invaded the hidden recesses of the female organism and snatched from its appointed seat a glandular body whose mysterious and wonderful functions are of the highest interest to the human race—nay, an organ endowed with functions, the integrity of which determines the very existence of the race itself. For having done this I trust I will not be *assassinated*, neither in my carriage at home, nor in this hall, nor yet upon the streets of your orderly city. Those of you, my brethren, who know me personally, I hope will scarcely need the assurance that I have not taken this step forward without due and deliberate thought. Whatever may be your opinions of the wisdom of my course, I trust you will see in it evidences of a heart not devoid of human sympathy, of a mind not shirking professional labor, of a hand not fearing to lift itself when duty calls."

It would be enlightening to read a discussion of Dr. Battey's paper, but none was forthcoming. Other papers read were: "Tracheotomy", by G. E. Sussdorf, of Macon; The Therapeutic Effects and Uses of Mercury, as influenced by the Report of the Edinburg Committee on the Action of Mercury, Podophyllin, and Taraxicum on the Biliary Secretion, by W. H. Doughty, of Augusta; Cerebro-Spinal Meningitis—Its Pathology and Treatment, by J. G. Westmoreland, of Atlanta; Pulmonary Tuberculosis, by A. W. Griggs, of West Point; and others. The Edinburgh Committee, as cited by Dr. Doughty, based its conclusions upon laboratory experiments, whereas Dr. Dough-

ty claimed that conclusions as to the value of drugs should be founded upon clinical experience, in which case mercury is found to be a valuable cholagogue, which the Report derived. It is noteworthy that Dr. Griggs' article was read nine years before Koch's discovery of the tubercle bacillus.

Officers elected for the ensuing year were: W. F. Westmoreland, Atlanta, President; DeSaussure Ford, Augusta, and Samuel G. White, Milledgeville, Vice Presidents; J. T. Johnson, Atlanta, Secretary; W. O'Daniel, Twiggs County, Treasurer. (Transactions, Medical Association of Georgia, 1873.)

Twenty Fifth Meeting, 1874

Thomasville was host of the meeting, which, after the stormy sessions of recent years, gave itself over to reading and discussing medical papers. Among these were:

Medication of Nursing Children Through Mother's Milk, Juriah Harris, Savannah.

Duality of Syphilitic Poisoning, J. C. LeHardy, Savannah.

Sympathetic Ophthalmia, A. W. Calhoun, Atlanta.

Endometritis, J. G. Hopkins, Thomasville.

Fourteen Cases of Compound Comminuted Fracture of the Thigh, from Gunshot Wounds with eight recoveries and little shortening, Carlisle Terry, Columbus.

Operation for Strangulated Scrotal Hernia, G. J. Grimes, Columbus.

Subinvolution of the Uterus, V. H. Taliaferro, Atlanta.

Is Dysmenorrhea Produced or Influenced by the size of the Cervical Canal? D. W. Hammond, Macon.

Cases of Urinary Calculus, L. A. Dugas, Augusta.

Ovarian Cyst: Tapped in the Iliac Region, and Treated with Iodine Injections, G. F. Wirsén, Morgan County.

The Treasurer's report showed \$10.50

in the treasury, easily understood when the annual dues were only one dollar, although the amount was raised to two dollars after this meeting, an initiation fee of \$5.00 being added. Officers chosen for 1875 were: DeSaussure Ford, of Augusta, President; R. L. Roddy, of Forsyth, and J. M. Boring, of Atlanta, Vice Presidents; R. B. Ridley, of LaGrange, Censor. The Board of Censors at this time consisted of five members, each serving five years, a new member being elected every year. It was an important body, passing upon the qualifications of every candidate for membership. The roll of members now numbered 480 names. (Transactions, Medical Association of Georgia, 1874.)

Twenty Sixth Meeting, 1875

This session convened in Savannah, in the hall of the Georgia Historical Society. Again many important papers were presented. Among them were:

Gradual Dilatation of Stricture of the Urethra on the Principle of the Multiple Wedge, John S. Coleman, Augusta.

Influence of Yellow Fever on Gestation and Parturition, A. J. Semmes, Savannah.

Bloodletting, defining Rules Governing the Proper Use of the Lancet, C. B. Nottingham, Macon.

Carbolic Acid as a Local Anesthetic in Surgical Operations, Eugene Foster, Augusta.

Irodotomy, Its Application to Certain Defects of the Eye, A. W. Calhoun, Atlanta.

On the Different Varieties and Forms of Fever Observed in Georgia During the Last Twenty Eight Years, J. G. Westmoreland, Atlanta.

Case of Resuscitation from Chloroform Poisoning Occurring During Operation for Railroad Injury of the Arm, R. P. Myers, Savannah.

Officers for 1876: J. G. Thomas, of Savannah, President; T. J. Word, of Columbus, and W. M. Greene, of Americus, Vice

Presidents. (Transactions, Medical Association of Georgia, 1875.)

Twenty Seventh Meeting, 1876

At this meeting, held in Augusta, among the papers read were:

Remarks Upon Some of the Pathological Peculiarities of the Negro Race, L. A. Dugas, Augusta.

Fibrocystic Tumor of the Jaw, W. F. Westmoreland, Atlanta.

Report of Sixty-nine Cataract Operations Made in the Majority of Cases According to Graefe's Linear Extraction, A. W. Calhoun, Atlanta.

The True Method of Treating Dislocations of the Scapula End of the Clavicle, W. H. Doughty, Augusta.

Successful Treatment of Opium Poisoning by the Use of Sulphate of Atropia Hypodermically, A. F. Barnard, Savannah.

Officers for 1877: Robert Battey, Rome, President; K. P. Moore, of Macon, and A. W. Calhoun, of Atlanta, Vice Presidents. (Transactions, Medical Association of Georgia, 1876.)

Twenty Eighth Meeting, 1877

Essays presented at this meeting, held in Macon, were:

The History, Causes, Nature, Pathology and Treatment of Yellow Fever, considering exclusively the epidemic of 1876, in Savannah, J. C. LeHardy, Savannah.

Defects of Hearing and Other Evils the Result of Enlarged or Hypertrophied Tonsils, A. W. Calhoun, Atlanta.

Ligation of the Primitive Carotid Artery on the Left Side, R. M. Smith, Athens.

The Treatment of Carbuncle, C. B. Leitner, Columbus.

Some Evidences of Progress in Medicine, J. G. Westmoreland, Atlanta.

A great deal of time was again consumed in the three-day meeting with reading reports and resolutions. Officers elected for 1878 were: William O'Daniel, of Bullard's

Station, President; D. W. Hammond, of Macon, and S. B. Hawkins, of Americus, Vice Presidents; J. B. Baird, Secretary; William E. Burgess, Treasurer.

The President's Address and the Annual Oration on all these occasions were interesting and inspiring. The speech of Dr. J. S. Todd, Annual Orator, at this time, was especially eloquent and forceful. In the paper by Dr. J. G. Westmoreland appears the first reference made in these meetings to antiseptic surgery, announced ten years previously by Lord Lister. (Transactions, Medical Association of Georgia, 1877.)

Twenty Ninth Meeting, 1878

Papers presented at this meeting, held in Atlanta, included:

Tubercular Meningitis, George J. Grimes, Columbus.

Neuralgia and Its Modern Therapeusis, J. B. Baird, Atlanta.

Report of 130 Cases of Strabismus, A. W. Calhoun, Atlanta.

Psoriasis, S. H. Stout, Roswell.

Nothing further was heard of several matters upon which resolutions had been passed during the past few years. Among these were proposed bills to be suggested for increasing the pay of medical officers in the Army and Navy. Another item was the effort to preserve and publish the experiences of Confederate surgeons during the late War. This seems to have been forgotten, as was the activities of a committee to urge the establishment of an Inebriate Asylum.

The following officers for the ensuing term were chosen: J. Thad Johnson, Atlanta, President; William F. Holt, Macon, and Thomas H. Kenan, Milledgeville, Vice Presidents; James B. Baird, Atlanta, Secretary; William R. Burgess, Macon, Treasurer. (Transactions, Medical Association of Georgia, 1878.)

Thirtieth Meeting, 1879

The three days of this meeting, in Rome,

were given over largely to reading and discussing medical papers. Among these were:

Quarantine, J. C. LeHardy, Savannah.

Tobacco Poisoning and Its Effect Upon the Eyesight, A. W. Calhoun, Atlanta.

The Toxic Effect of Potassium Bromide, Charles H. Hall, Macon.

Morbid Reflex Excitability, A. W. Griggs, West Point.

Traumatic Tetanus, A. R. Taylor, Hawkinsville.

Officers chosen were: Joseph A. Eve, of Augusta, President; J. C. LeHardy, of Savannah, and B. R. Doster, of Blakley, Vice Presidents; K. P. Moore, Macon, Treasurer. (Transactions, Medical Association of Georgia, 1879.)

Thirty First Meeting, 1880

For several years there had been committees appointed to confer with the State Board of Health with a view to perfecting the law for the government of the Board, and presenting the same to the Legislature "at its next session." There were majority and minority reports on the matter and up until this time nothing had been accomplished.

Papers discussed at the sessions, held in Augusta, were:

Report of Forty-two Cases of Uncomplicated Stricture of the Urethra, W. S. Armstrong, Atlanta.

Ophthalmic Operations, with Remarks on After Treatment, A. Sibley Campbell, Augusta.

Incised Wound of the Elbow, Severing Biceps Muscle, Brachial Artery and Median Nerve, Thomas R. Wright, Augusta.

Case of Double Ovariectomy with Antiseptic Precautions, with Death on the Nineteenth Day from Tetanus, P. L. Hilsman, Albany.

A Report of Seventeen Cataract Operations, T. M. McIntosh, Thomasville.

Officers elected were: J. C. LeHardy, of

Savannah, President; E. W. Alfriend, of Albany and W. B. Wells, of Red Clay, Vice Presidents. (Transactions, Medical Association of Georgia, 1880.)

The information given in this brief history of the Medical Association of Georgia from 1849 to 1880, involving some research, has been collected with considerable difficulty. Sincere appreciation and thanks are due Miss Mildred Jordan, Librarian of the A. W. Calhoun Library of the Medical School of Emory University, for her assistance in the undertaking. From 1880 on the compilation should be simpler, since the further Transactions and files of THE JOURNAL, which contain the essential facts, are easily available.

FRANK K. BOLAND, M.D.

CONSTITUTION AND BY-LAWS, AND CODE OF MEDICAL ETHICS

In this *Journal* will be found a copy of the Constitution and By-Laws and Code of Medical Ethics adopted by the Association at its organization meeting, held in Macon March 20, 1849.

Also, as has been the custom for many years, the current Constitution and By-Laws is published.

Students of such documents probably will wonder how any organization could grow and prosper over a period of 100 years with such brief, and at times what appear to be inadequate guides. The answer will be found in the Code of Medical Ethics adopted 100 years ago, which has changed little with the passing of time, and the desire on the part of all members of the Association to cooperate "in the prevention and cure of disease, and in prolonging and adding comfort to life."

CONSTITUTION AND BY-LAWS OF THE MEDICAL ASSOCIATION OF GEORGIA, 1949

Constitution

ARTICLE I.—NAME OF THE ASSOCIATION

The name and title of this organization shall be The Medical Association of Georgia.

ARTICLE II.—PURPOSES OF THE ASSOCIATION

The purposes of this Association shall be to federate and bring into one component organization the entire medical profession of the State of Georgia; to extend medical knowledge and advance medical science; to elevate the standard of medical education and to secure the enactment and enforcement of just medical laws; to promote friendly intercourse among physicians; to guard and foster the material interests of its members

and to protect them against imposition; and to enlighten and direct public opinion in regard to the great problems of state and medicine, so that the profession shall become more capable and honorable within itself, and more useful to the public, in the prevention and cure of disease, and in prolonging and adding comfort to life.

ARTICLE III.—COMPONENT SOCIETIES

Component societies shall consist of those county societies which hold charters from this Association.

ARTICLE IV.—COMPOSITION OF THE ASSOCIATION

Section 1. This Association shall consist of members and delegates.

Sec. 2. Members: The members of this Association shall be the members of the component county medical societies to which only white physicians shall be eligible.

Sec. 3. Delegates: Delegates shall be those members who are elected in accordance with this Constitution and By-Laws to represent their respective component societies in the House of Delegates of this Association.

ARTICLE V.—HOUSE OF DELEGATES

The House of Delegates shall be the legislative body of the Association, and shall consist of: (1) delegates elected by the component county societies; (2) the officers of the Association enumerated in Section 1 of Article IX of the Constitution; (3) ex-presidents and delegates to the American Medical Association.

ARTICLE VI.—COUNCIL

The Council shall be the Board of Trustees and Finance Committee of the Association. The Council shall have full authority and power of the House of Delegates between annual sessions, unless the House of Delegates be called into session as provided in the Constitution and By-Laws.

It shall consist of the Councilors, the President, the President-Elect and the Secretary-Treasurer of the Association. Five of its members shall constitute a quorum.

ARTICLE VII.—SESSIONS AND MEETINGS

Section 1. The annual session shall take place on the second Wednesday in May at such place as shall be designated by the Association, provided that in case of conflict with the annual session of the American Medical Association or on petition of the county society of the host city made at least six months before the fixed dates for the annual session, the Council may change the dates by publishing a notice in the JOURNAL OF THE MEDICAL ASSOCIATION OF GEORGIA three months before the session.

Sec. 2. Special meetings of either the Association or the House of Delegates may be called by a two-thirds vote of the Council, or upon the petition of twenty delegates.

ARTICLE VIII.—SECTIONS AND DISTRICT SOCIETIES

Section 1. The House of Delegates may provide for a division of the scientific work of the Association into appropriate sections, and for the organization of such Councilor district societies as will promote the best interests of the profession, such societies to be composed exclusively of members of component county societies.

ARTICLE IX.—OFFICERS

Section 1. The officers of this Association shall be a

(Continued on page 168)

Georgia
PROCEEDINGS

OF THE

STATE MEDICAL CONVENTION,

HELD

IN MACON, MARCH, 1849,

AND

CONSTITUTION OF THE MEDICAL SOCIETY

OF THE

850

STATE OF GEORGIA.

*Std Case
350*

MACON;

PRINTED BY S. ROSE & CO.

1849.

PROCEEDINGS

OF THE

STATE MEDICAL CONVENTION.

In pursuance of a call from the Medical College of the State of Georgia and the Georgia Medical Society of Savannah, addressed to the Practitioners of Medicine throughout the State, they assembled in Convention, in the city of Macon, on Tuesday the 20th of March, 1849.

On motion of Dr. E. L. STROHECKER, the Convention was temporarily organized by calling Dr. THOMAS HOXEY, of Columbus, to the Chair, and appointing Dr. S. W. BURNEY Secretary.

On motion of Dr. R. D. ARNOLD, the members presented their names to the Secretary, and were enrolled, as follows:

Baker County—R. Q. Dickenson, W. L. Davis.

Baldwin “ T. F. Green.

Bibb “ M. A. Franklin, C. T. Quintard, James M. Green, E. L. Strohecker, H. K. Green, C. B. Nottingham, Charles Thompson, J. B. Wiley, R. McGoldrick, Jos. LeConte, J. C. Gilbert, W. G. Little, J. R. Boon, Thos. R. Lamar, J. W. Benson.

Burke “ W. C. Musgrove.

Chatham “ R. D. Arnold, Thomas Stewardson.

Clark “ W. L. Jones.

<i>Cobb County</i>	— William N. King.
<i>Crawford</i> "	J. D. Smith.
<i>Dooly</i> "	W. M. Stokes, D. J. Bothwell, T. T. Williamson.
<i>Fayette</i> "	B. O. Jones, J. S. Holliday, R. T. Stell.
<i>Floyd</i> "	J. R. Alexander.
<i>Gwinnett</i> "	James M. Gordon.
<i>Henry</i> "	C. I. Fall.
<i>Houston</i> "	J. C. Gibson, Charles West, G. F. Cooper, E. Fitzgerald, D. B. O'Sullivan.
<i>Jasper</i> "	W. D. Maddox, A. A. McKee.
<i>Jones</i> "	W. S. Lightfoot, Asbury Kingman.
<i>Lee</i> "	M. N. B. Outlaw, J. Hilsman.
<i>Madison</i> "	H. R. J. Long.
<i>Mercer</i> "	J. W. Hewell.
<i>Monroe</i> "	W. B. Stephens, J. C. Winn, J. B. Searcy, H. L. Battle, S. W. Burney, George A. Winn.
<i>Morgan</i> "	H. J. Ogilby.
<i>Muscogee</i> "	Thomas Hoxey, William Flewellen, F. A. Stanford.
<i>Oglethorpe</i> "	Willis Willingham, B. V. Willingham.
<i>Pike</i> "	C. F. Redding, N. B. Johnson, E. F. Knott, J. G. Westmoreland.
<i>Richmond</i> "	L. D. Ford, Robert Campbell.
<i>Stewart</i> "	G. M. Cade.
<i>Sumter</i> "	J. D. Gregory.
<i>Troup</i> "	W. P. Beasley.
<i>Twiggs</i> "	I. E. Dupree, R. A. Nash, T. Jones, E. F. Way.
<i>Upson</i> "	J. L. Cheney, A. B. Greene, Rich'd Oliver.
<i>Washington</i> "	S. D. Brantly.

On motion of Dr. J. M. GREEN, the Chairman appointed a Committee, consisting of one from each county represented, to nominate Officers for the permanent organization of

the Convention. The following gentlemen were appointed: Drs. J. M. Green, Dickenson, T. F. Green, Lamar, Musgrove, Stewardson, W. L. Jones, W. N. King, J. D. Smith, Bothwell, Halliday, Alexander, Gordon, Fall, West, Maddox, Kingman, Hillsman, Long, Westmoreland, Ford, Gregory, Beasley, Dupree, Brantly and A. B. Greene.

The Committee retired, and upon returning reported, through its Chairman, the following, viz:

LEWIS D. FORD, M. D., of Augusta, President.

R. D. ARNOLD, M. D., of Savannah, 1st V. President.

T. R. LAMAR, M. D., of Macon, 2d V. President.

JAMES M. GREEN, M. D. } of Macon, Secretaries.

C. T. QUINTARD, M. D. } of Macon, Secretaries.

Dr. J. M. GREEN moved the appointment of a committee to inform Dr. FORD of his election, and wait upon him to the Chair. Dr. T. F. Green, of Milledgeville, and Dr. Charles Thompson, of Macon, were appointed by the Chairman.

After the President had been conducted to his seat, the Vice Presidents and Secretaries took their respective places, and the President made some preliminary remarks, setting forth the importance and objects of the Convention.

The Convention being now fully organized and ready for business, Dr. ARNOLD of Savannah took the floor, and in a brief speech stated the importance and necessity of organization and centralization, for the advancement of the Profession, and moved the appointment of a Committee to draft a Constitution and By-Laws for the permanent organization of a State Medical Society.

This motion was seconded by Dr. J. M. GREEN, and unanimously adopted.

A vote was taken as to the number of which this Committee should consist, and it was decided that seven should be appointed. The President accordingly designated the following:

Dr. R. D. ARNOLD, of Chatham; Dr. J. M. GREEN, of

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Bibb; Dr. THOS. HOXEY, of Muscogee; Dr. CHAS. WEST, of Houston; Dr. H. J. OGILBY, of Morgan; Dr. R. Q. DICKENSON, of Baker, and Dr. GORDON, of Gwinnett.

A motion was made, and carried unanimously, that Dr. DEGRAFFENREID of Florida be invited to a seat in the Convention.

A motion was also adopted that the Editors of the City Journals be invited to a seat in the Convention.

The Convention then adjourned until 3 o'clock, P. M.

AFTERNOON SESSION.

Convention re-assembled at 3 o'clock, P. M. The President having taken his seat, the Secretary called the roll.

The Committee appointed to draft a Constitution and By-Laws announced, through its Chairman, that they were prepared to report.*

The Report of the Committee was received—when a motion was made to act on the articles separately. The 1st and 2d articles were adopted. On reading the 3d article, Dr. Hoxey moved to insert the word "hereafter," after the words "qualified can," occurring in the 2d section. Adopted. All the other articles of the Constitution, and all the By-Laws, were, after some discussion, adopted unanimously.

Dr. C. THOMPSON, of Macon, then presented the following:

Resolved, That the Convention do now resolve itself into the "*Medical Society of the State of Georgia*," and that the Officers of the Convention continue to act as Officers of the Society until an election can be had.

* Dr. Arnold, in submitting the report, stated that no originality was assumed or aimed at by the Committee, in the draft of a Constitution and By-Laws they now had the honor to report.

This being adopted, the members prepared ballots—upon counting of which, it appeared that the following gentlemen were elected :

- LEWIS D. FORD, M. D., of Augusta, President.
- R. D. ARNOLD, M. D., of Savannah, 1st Vice Pres't.
- THOMAS R. LAMAR, M. D., of Macon, 2d " "
- JAMES M. GREEN, M. D., of Macon, Cor. Secretary.
- CHAS. T. QUINTARD, M. D. " Rec. "

There being no election for Treasurer, another ballot was ordered, and on counting out, it appeared that S. W. BURNEY, M. D., of Monroe county, was duly elected.

The Society then adjourned until 8 o'clock, P. M.

LEWIS D. FORD, *President.*

J. M. GREEN, }
C. T. QUINTARD, } *Secretaries.*

MEDICAL SOCIETY OF GEORGIA.

The Society met pursuant to adjournment. The first business presenting itself was the election of delegates to the American Medical Association. The members of the Society cast their ballots; upon counting which, the President announced the election of the following gentlemen, viz :

- | | |
|------------------------|-------------------------|
| THOMAS HOXEY, M. D. | I. E. DUPREE, M. D. |
| T. F. GREEN, M. D. | E. L. STROHECKER, M. D. |
| H. J. OGILBY, M. D. | W. B. STEPHENS, M. D. |
| ROBERT CAMPBELL, M. D. | |

The following resolution was presented by Dr. HOXEY :

Resolved, That in the event that any gentleman elected as a delegate of this Society should be unable to attend said

National Association, notice of the same shall be given to the President by the said delegate; and that the President be authorized to fill said vacancy.

This was adopted.

Dr. STEWARDSON moved an amendment to the Constitution, by striking out the words "or who prescribes a remedy, without knowing its composition," occurring in the 3d section of the 6th article of the Constitution. After a short discussion the amendment was accepted by the Society.

The following resolution, presented by Dr. STROHECKER, was adopted:

Resolved, That Dr. ARNOLD be requested to deliver an address at the next meeting of the Medical Society of the State of Georgia.

The question which next came up was the selection of a place for the meeting of the Society in 1850. Dr. THOMPSON proposed Macon, as, from its central position and accessibility, a larger attendance might be expected. This being urged by Dr. THOS. HOXHEY and others, was finally carried.

On motion of Dr. WEST, the President appointed the following gentlemen a committee to make proper arrangements for the meeting of this Society: Drs. J. B. Wiley, Joseph LeConte, Charles Thompson, J. C. Gilbert and C. B. Nottingham.

The President stated that he had received a telegraphic despatch, requiring his presence in Augusta; he would therefore be obliged to leave the city in the morning. After expressing his thanks to the Society for the honor of his election as President, and congratulating the members of the Society on the formation of the Medical Society of the State of Georgia, the unanimity which had marked its first session, and the happy influence it would naturally exert upon the profession generally, the Society adjourned to meet again at 10 o'clock the following morning.

SECOND DAY.

At the appointed time the meeting was called to order by the 1st Vice President. After the call of the roll, the minutes were read by the Secretary, and confirmed.

A letter, received from Dr. ZELOTES H. MASON, requesting the enrolment of his name as a member of this Society, was read by the Secretary. On motion, it was resolved that, on complying with the requisitions of the Constitution, Dr. Mason be received as an original member of the Society.

Dr. W. L. JONES offered the following preamble and resolution, which were adopted:

Whereas, the great desideratum for establishing the Laws of the Phenomena of Life and Death, of Health and Disease, is an immense collection of *facts*; and the determination of these Laws being the only sure foundation of Medical Science, therefore

Resolved, That the attention of Physicians in this State is respectfully directed to the subject of keeping records of Physiological, Pathological and Meteorological phenomena, and that it be recommended to the Auxiliary Societies to take measures for obtaining full and accurate data in reference to the diseases of their district; also records of the states of the thermometer, barometer, atmospheric electricity, thunder-storms, rains, clouds, winds and dew-point, during each day of the year. Also, to prepare Geographical and Geological Maps of their districts, containing descriptions of the face of the country, as relates to hills and valleys, land and water; also, a description of the soils, of the nature of the vegetation, and of the relative abundance of cleared and wood-lands: and that such Records and Maps be sent to the Corresponding Secretary, to be deposited by him in the archives of this Society.

Dr. ARNOLD requested **Dr. WEST** to take the Chair, and presented the following preamble and resolutions:

Whereas, it is important that evidence in cases of pedigree and descent should be perpetuated, for the purpose of a more easy enforcement of the rights of the people of this State: and wherens, statistical details of the diseases, births and deaths are important, alike to the political economist and the medical philosopher, and efforts to procure such information have been the object of legislation in every enlightened government: And whereas, the American Medical Association, representing the highest intelligence of the Medical Profession in the United States, has undertaken to obtain legislation on this subject in every State in the Union:

Resolved, That this Society fully concur in the great importance of the subject, and this Society do earnestly recommend to the General Assembly of the State of Georgia to pass a bill for the uniform Registration of Births, Marriages and Deaths occurring annually in the limits of the State.

Resolved, That a certified copy of the above preamble and resolution be forwarded, at the next session of the Legislature, to the existing Governor of the State and to the President of the Senate and the Speaker of the House of Representatives.

The preamble and resolutions of Dr. ARNOLD were unanimously concurred in and adopted. And on motion of Dr. JAMES M. GREEN, it was

Resolved, That a Committee of five, of which Dr. Arnold shall be chairman, be appointed to memorialise the Legislature on the subject.

The following Committee was appointed: Drs. R. D. Arnold, E. L. Strohecker, H. J. Ogilby, G. A. Winn and G. F. Cooper.

Dr. JAMES M. GREEN introduced the following:

Resolved, That a committee be appointed, consisting of one from each Congressional District, of which the President of

the Society shall be Chairman, to address the Profession at large upon the expediency of organizing Auxiliary Societies, registering the names of all regular Practitioners of Medicine, keeping records of the state of the weather, notes of disease, and other matters of importance to the profession.

The President appointed the following: 8th District, Dr. L. D. Ford; 1st, Dr. Thomas Stewardson; 2d, Dr. Charles West; 3d, Dr. E. F. Knott; 4th, Dr. W. P. Beasley; 5th, Dr. Wm. N. King; 6th, Dr. W. L. Jones; 7th, Dr. Asbury Kingman.

The following resolution, offered by Dr. GORDON of Gwinnett, was adopted:

Resolved, That we have the utmost confidence in the integrity and faithful ability with which the Southern Medical and Surgical Journal is conducted, and most cheerfully recommend it to the patronage of the Medical profession.

Dr. THOS. F. GREEN offered the following:

Resolved, That the Secretaries of the Society be authorized to have printed five hundred copies of a pamphlet containing the proceedings of the Convention and Society, the Constitution and By-Laws, and also the Code of Ethics adopted.

Resolved, That the Treasurer be authorized to pay to the order of said Secretaries such sum of money as may be necessary for the accomplishment of these objects.

Carried *nem. diss.*

The following resolution, offered by Dr. STEWARDSON and seconded by Dr. WEST, was unanimously adopted:

Resolved, That the thanks of this Society be presented to the Medical Society of Macon for its promptitude and attention in making proper arrangements for the meeting of the Convention and Society.

Dr. CHAS. THOMPSON offered the following resolutions, which were seconded by Dr. KINGMAN:

Resolved, That the Medical Society of Georgia present

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its thanks to the Officers of the various Railroad Companies for the kindness and liberality they have extended to the members of this Society, and that the Corresponding Secretary be instructed to address a copy of this resolution to the President of each Company.

Resolved, That the thanks of the Society be presented to Tomochichi Division, Sons of Temperance, for the use of their Hall, and that the Corresponding Secretary address them a copy of this resolution.

Resolved, That the Medical Society of the State of Georgia present its thanks to the Officers of the Convention and Society for the courtesy, impartiality and ability with which they have discharged their several duties.

Carried *nem. diss.*

Upon motion of Dr. STEWARDSON, the Society then adjourned.

CHAS. T. QUINTARD, M. D.

Recording Secretary.

CONSTITUTION

OF THE

MEDICAL SOCIETY OF THE STATE OF GEORGIA.

ADOPTED MARCH 20, 1849.

ARTICLE I.

TITLE OF THE SOCIETY.

The name and style of this Society shall be "*The Medical Society of the State of Georgia.*"

ARTICLE II.

OBJECTS OF THE SOCIETY.

The objects of this Society shall be the advancement of Medical knowledge—the elevation of professional character—the protection of the interests of its members—the extension of the bounds of Medical Science, and the promotion of all measures adapted to relieve suffering humanity and to protect the lives and improve the health of the community.

ARTICLE III.

MEMBERS OF THE SOCIETY.

§ 1. The Society shall consist of every person now present as a member of the State Medical Convention, who is a graduate of a respectable Medical College, or who may be authorized to practice by the legislative act of 1839 re-constituting the Medical Board of the State, and who shall conform to the regulations of the Society.

§ 2. Any Member of the Profession, thus qualified, can hereafter, on written application to the Society, through the Corresponding Secretary, be admitted to it by a vote of two-thirds of the members present.

ARTICLE IV.

OF THE OFFICERS.

§ 1. The Officers of the Society shall be a President, two Vice Presidents, a Corresponding and a Recording Secretary, and a Treasurer.

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§ 2. Each Officer shall be elected annually, by ballot, on a general ticket, and shall serve for one year, or until another be elected to succeed him.

ARTICLE V.

DUTIES OF OFFICERS.

§ 1. The President shall preside at the meetings, preserve order, and perform such other duties as custom and parliamentary usage may require. He shall not be eligible two terms in succession.

§ 2. The Vice Presidents, when called upon, shall assist the President in the performance of his duties, and during the absence of, or at the request of the President, one of them shall officiate in his place.

§ 3. The Corresponding Secretary shall conduct the correspondence and perform such other duties as usually appertain to that office.

§ 4. The Recording Secretary shall keep correct minutes of the proceedings, and when approved, shall fairly transcribe the same in a book to be kept for that purpose. He shall have charge of all papers belonging to the Society, other than those appertaining to the Treasurer and Corresponding Secretary, and give due notice of the annual meetings.

§ 5. The Treasurer shall receive all monies belonging to the Society, and disburse them as directed, preserving vouchers for the same. He shall annually present a statement of the finances of the Society, which shall be referred to a committee to be audited.

ARTICLE VI.

OF AUXILIARY SOCIETIES.

§ 1. The members of the Profession in any county, or in any two or more adjacent counties, where there is not a sufficient number in one county, in this State, who desire so to do, may form themselves into an Auxiliary Society: *Provided*, that public notice of the proposed meeting be given, and that all the regular members of the profession in said county or counties be invited to join therein; and said Society may adopt rules for their government, provided the same do not contravene those of the State Society—may elect officers, and do all such acts as may be necessary to carry out the objects of their association.

§ 2. No one shall be admitted a member of an Auxiliary Society unless he is either a graduate in Medicine, of some respectable Medical School, or has a license to practice from the Medical Board of Georgia, or is recognised as a practitioner by the act reviving that body, passed in 1839; and who, moreover, is in good moral and professional standing in the place where he resides, and is a regular practitioner.

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§ 3. Any Physician who shall procure a patent for a remedy or instrument of surgery, or who uses in his practice any secret remedy or nostrum, or who shall hereafter give a certificate in favor of such instrument or remedy, shall be disqualified from becoming a member of an Auxiliary Society, and consequently of the State Society.

§ 4. As soon as an Auxiliary Society is organized, the Secretary thereof shall transmit to the Corresponding Secretary of the State Society a copy of their rules and regulations, with the names of the officers and members.

§ 5. Every Auxiliary Society shall enforce the observance, by its members, of the Code of Ethics adopted by the State Society; and they shall be authorized to censure or expel any member convicted of violating its provisions.

§ 6. The Auxiliary Societies shall report annually to the State Society a list of their members and officers, any new rules they may adopt, and such other matters as they may deem interesting.

§ 7. The Auxiliary Societies shall hold at least two meetings in every year.

ARTICLE VII.

MEETINGS OF THE SOCIETY.

§ 1. The Society shall hold an Annual Meeting on the second Wednesday in the month of April of each year.

§ 2. The place of meeting shall be determined, for each succeeding year, by a vote of the Society.

ARTICLE VIII.

OF THE FUNDS.

Means for defraying the expenses of the annual meetings and current expenses of the Society may be raised by an annual assessment on its members, of not more than two dollars each.

ARTICLE IX.

CODE OF ETHICS.

This Society adopts, as a part of its regulations, the Code of Ethics of the American Medical Association.

ARTICLE X.

ALTERATIONS.

No alteration or amendment of this Constitution shall be made, unless it receives the vote of two-thirds of the members present.

BY-LAWS.

ORDER OF BUSINESS.

- 1st. The President, or, in his absence, one of the Vice Presidents, shall call to order; in case of the absence of all these officers, a Chairman *pro tem.* shall be appointed for that purpose.
- 2d. Calling the roll of members.
- 3d. Reading of the minutes.
- 4th. Election of Officers and Delegates to the American Medical Association.
- 5th. Any business which requires early consideration may be introduced.
- 6th. Reports from Auxiliary Societies.
- 7th. The Correspondence shall be read by the Corresponding Secretary.
- 8th. Written communications may be discussed.
- 9th. Oral communications may be made and discussed.
- 10th. Resolutions introducing new business.
- 11th. Selection of a place for the next meeting.
- 12th. Miscellaneous business.

REPORT OF THE COMMITTEE

Appointed under the 6th Resolution, adopted by the National Medical Convention, which assembled in New-York, in May, 1846.

6th. *Resolved*, That it is expedient that the Medical Profession in the United States should be governed by the same Code of Medical Ethics, and that a Committee of seven be appointed to report a Code for that purpose, at a meeting to be held at Philadelphia, on the first Wednesday of May, 1847.

Committee—Drs. J. BELL, I. HAYS and G. EMERSON, of Philadelphia; W. W. MORRIS, Dover, Del.; T. C. DUNN, Newport, R. I.; A. CLARK, N. Y.; and R. D. ARNOLD, Savannah, Ga.

INTRODUCTION TO THE CODE OF MEDICAL ETHICS.

MEDICAL ETHICS, as a branch of general ethics, must rest on the basis of religion and morality. They comprise not only the duties, but also the rights of a physician; and, in this sense, they are identical with Medical Deontology—a term introduced by a late writer, who has taken the most comprehensive view of the subject.

In framing a code on this basis, we have the inestimable advantage of deducing its rules from the conduct of the many eminent physicians who have adorned the profession by their learning and their piety.—From the age of Hippocrates to the present time the annals of every civilized people contain abundant evidences of the devotedness of medical men to the relief of their fellow-creatures from pain and disease, regardless of the privation and danger, and not seldom obloquy, encountered in return; a sense of ethical obligations rising superior, in their minds, to considerations of personal advancement. Well and truly was it said by one of the most learned men of the last century, that the duties of a physician were never more beautifully exemplified than in the conduct of Hippocrates, nor more eloquently described than in his writings.

We may here remark, that, if a state of probation be intended for moral discipline, there is, assuredly, much in the daily life of a physician to impart this salutary training, and to insure continuance in a course of self-denial; and, at the same time, of zealous and methodical efforts for the relief of the suffering and unfortunate, irrespective of rank or fortune, or of fortuitous elevation of any kind.

A few considerations on the legitimate range of medical ethics will serve as an appropriate introduction to the requisite rules for our guidance in the complex relations of professional life.

Every duty or obligation implies, both in equity and for its successful discharge, a corresponding right. As it is the duty of a physician to advise, so has he a right to be attentively and respectfully listened to. Being required to expose his health and life for the benefit of the community, he has a just claim, in return, on all its members, collectively and individually, for aid to carry out his measures, and for all possible tenderness and regard to prevent needlessly harassing calls on his services, and unnecessary exhaustion of his benevolent sympathies.

His zeal, talents, attainments and skill, are qualities which he holds in trust for the general good, and which cannot be prodigally spent, either through his own negligence or the inconsiderateness of others, without wrong and detriment both to himself and to them.

The greater the importance of the subject and the more deeply interested all are in the issue, the more necessary is it that the physician—he who performs the chief part, and in whose judgment and discretion, under Providence, life is secured and death turned aside—should be allowed the free use of his faculties, undisturbed by a querulous manner, and desponding, angry, or passionate interjections, under the plea of fear, or grief, or disappointment of cherished hopes, by the sick and their friends.

All persons privileged to enter the sick room, and the number ought to be very limited, are under equal obligations of reciprocal courtesy, kindness and respect; and, if any exception be admissible, it cannot be at the expenses of the physician. His position, purposes and proper efforts, eminently entitle him to, at least, the same respectful and considerate attentions that are paid, as a matter of course and apparently without constraint, to the clergyman who is admitted to administer spiritual consolation, and to the lawyer who comes to make the last will and testament.

Although professional duty requires of a physician that he should have such a control over himself as not to betray strong emotion in the presence of his patient, nor to be thrown off his guard by the querulousness or even rudeness of the latter, or of his friends at the

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bedside, yet, and the fact ought to be generally known, many medical men, possessed of abundant attainments and resources, are so constitutionally timid and readily abashed as to lose much of their self-possession and usefulness at a critical moment, if opposition be abruptly interposed to any part of the plan which they are about devising for the benfit of their patients.

Medical ethics cannot be so divided as that one part shall obtain the full and proper force of moral obligations on physicians universally, and, at the same time, the other be construed in such a way as to free society from all restrictions in its conduct to them; leaving it to the caprice of the hour to determine whether the truly learned shall be overlooked in favor of ignorant pretenders—persons destitute alike of original talent and acquired fitness.

The choice is not indifferently in an ethical point of view, besides its important bearing on the fate of the sick themselves, between the directness and sincerity of purpose, the honest zeal, the learning and impartial observations, accumulated from age to age for thousands of years, of the regularly initiated members of the medical profession, and the crooked devices and low arts for evidently selfish ends, the unsupported promises and reckless trials of interloping empirics, whose very announcement of the means by which they profess to perform their wonders are, for the most part, misleading and false, and, so far, fraudulent.

In thus deducing the rights of a physician from his duties, it is not meant to insist on such a correlative obligation, that the withholding of the right exonerates from the discharge of the duty. Short of the formal abandonment of the practice of his profession, no medical man can withhold his services from the requisition either of an individual or of the community, unless under circumstances of rare occurrence, in which his compliance would be not only unjust but degrading to himself, or to a professional brother, and so far diminish his future usefulness.

In the discharge of their duties to society, physicians must be ever ready and prompt to administer professional aid to all applicants, without prior stipulation of personal advantages to themselves.

On them devolves, in a peculiar manner, the task of noting all the circumstances affecting the public health, and of displaying skill and ingenuity in devising the best means for its protection.

With them rests, also, the solemn duty of furnishing accurate medical testimony in all cases of criminal accusation of violence, by which health is endangered and life destroyed, and in those other numerous ones involving the question of mental sanity and of moral and legal responsibility.

On these subjects—Public Hygiene and Medical Jurisprudence—every medical man must be supposed to have prepared himself by study, observation, and the exercise of a sound judgment. They cannot be regarded in the light of accomplishments merely: they are an integral part of the science and practice of medicine.

It is a delicate and noble task, by the judicious application of Public Hygiene to prevent disease and prolong life, and thus to increase the productive industry, and, without assuming the office of moral and religious teaching, to add to the civilization of an entire people.

In the performance of this part of their duty, physicians are enabled to exhibit the close connection between hygiene and morals; since all the causes contributing to the former are nearly equally auxiliary to the latter.

Physicians, as conservators of the public health, are bound to bear emphatic testimony against quackery in all its forms, whether it appears with its usually effrontery, or masks itself under the garb of philanthropy and sometimes of religion itself.

By an anomaly in legislation and penal enactments, the laws, so stringent for the repression and punishment of fraud in general, and against attempts to sell poisonous substances for food, are silent, and of course inoperative, in the cases of both fraud and poisoning so extensively carried on by the host of quacks who infest the land.

The newspaper press, powerful in the correction of many abuses, is too ready, for the sake of lucre, to aid and abet the enormities of quackery. Honorable exceptions to the once general practice in this respect are becoming, happily, more numerous, and they might be more rapidly increased if physicians, when themselves free from all taint, were to direct the attention of editors and proprietors of newspapers, and of periodical works in general, to the moral bearings of the subject.

To those who, like physicians, can best see the extent of the evil, it is still more mortifying than in the instances already mentioned, to find members of other professions, and especially Ministers of the Gospel, so prone to give their countenance, and at times direct patronage, to medical empirics, both by their use of nostrums and by their certificates in favor of the absurd pretensions of these impostors.

The credulous, on these occasions, place themselves in the dilemma of bearing testimony either to a miracle or to an imposture: to a miracle, if one particular agent, and it often of known inertness or slight power, can cure all diseases, or even any one disease in all its stages; to an imposture, if the alledged cures are not made, as experience shows that they are not.

But by no chas are quack medicines and nostrums so largely sold and distributed as by apothecaries, whose position towards physicians,

although it may not amount to actual affinity, is such that it ought, at least, to prevent them from entering into an actual, if not formally recognized alliance with empirics of every grade and degree of pretension.

Too frequently we meet with physicians who deem it a venial error, in ethics, to permit, and even to recommend, the use of a quack medicine or secret compound by their patients and friends. They forget that their toleration implies sanction of a recourse by the people generally to unknown, doubtful and conjectural fashions of medication; and that the credulous in this way soon become the victims of an endless succession of empirics. It must have been generally noticed, also, that they, whose faith is strongest in the most absurd pretensions of quackery, entertain the greatest skepticism towards regular and philosophic medicine.

Adverse alike to ethical propriety and to medical logic, are the various popular delusions which, like so many epidemics, have, in successive ages, excited the imagination with extravagant expectations of the cure of all diseases and the prolongation of life beyond its customary limits, by means of a single substance. Although it is not in the power of physicians to prevent, or always to arrest these delusions in their progress, yet it is incumbent on them, from their superior knowledge and better opportunities, as well as from their elevated vocation, steadily to refuse to extend to them the slightest countenance, still less support.

These delusions are sometimes manifested in the guise of a new and infallible system of medical practice,—the faith in which, among the excited believers, is usually in the inverse ratio of the amount of common sense evidence in its favour. Among the volunteer missionaries for its dissemination, it is painful to see members of the sacred profession, who, above all others, ought to keep aloof from vagaries of any description, and especially of those medical ones which are allied to empirical imposture.

The plea of good intention is not an adequate reason for the assumption of so grave a responsibility as the propagation of a theory and practice of medicine, of the real foundation and nature of which, the mere medical amateur must necessarily, from his want of opportunity for study, observation and careful comparison, be profoundly ignorant.

In their relations with the sick, physicians are bound, by every consideration of duty, to exercise the greatest kindness with the greatest circumspection; so that, whilst they make every allowance for impatience, irritation, and inconsistencies of manner and speech of the sufferers, and do their utmost to soothe and tranquillize, they shall, at

the same time, elicit from them, and the persons in their confidence, a revelation of all the circumstances connected with the probable origin of the diseases which they are called upon to treat.

Owing either to the confusion and, at times, obliquity of mind produced by the disease, or to considerations of false delicacy and shame, the truth is not always directly reached on these occasions; and hence the necessity, on the part of the physician, of a careful and minute investigation into both the physical and moral state of the patient.

A physician in attendance on a case, should avoid expensive complications and tedious ceremonials, as being beneath the dignity of true science and embarrassing to the patient and his family, whose troubles are already great.

In their intercourse with each other, physicians will best consult and secure their own self-respect and consideration from society in general, by a uniform courtesy and high-minded conduct towards their professional brethren. The confidence in his intellectual and moral worth, which each member of the profession is ambitious of obtaining for himself among his associates, ought to make him willing to place the same confidence in the worth of others.

Veracity, so requisite in all the relations of life, is a jewel of inestimable value in medical description and narrative, the lustre of which ought never to be tainted for a moment by even the breath of suspicion. Physicians are peculiarly enjoined, by every consideration of honor and of conscientious regard for the health and lives of their fellow beings, not to advance any statement unsupported by positive facts, nor to hazard an opinion or hypothesis that is not the result of deliberate inquiry into all the data and bearings of which the subject is capable.

Hasty generalization, paradox and fanciful conjectures, repudiated at all times by sound logic, are open to the severest reprehension on the still higher grounds of humanity and morals. Their tendency and practical operation cannot fail to be eminently mischievous.

Among medical men associated together for the performance of professional duties in public institutions, such as Medical Colleges, Hospitals and Dispensaries, there ought to exist, not only harmonious intercourse, but also a general harmony in doctrine and practice; so that neither students nor patients shall be perplexed, nor the medical community mortified by contradictory views of the theory of disease, if not of the means of curing it.

The right of free inquiry, common to all, does not imply the utterance of crude hypotheses, the use of figurative language, a straining after novelty for novelty's sake, and the involution of old truths for temporary effect and popularity, by medical writers and teachers.

therefore, they who are engaged in a common cause, and for the furtherance of a common object; could make an offering of the extreme, the doubtful, and the redundant, at the shrine of philosophical truth, the general harmony in medical teaching now desired, would be of easy attainment.

It is not enough, however, that the members of the medical profession be zealous, well-informed and self-denying, unless the social principle be cultivated by their seeking frequent intercourse with each other, and cultivating, reciprocally, friendly habits of acting in common.

By union alone can medical men hope to sustain the dignity and extend the usefulness of their profession. Among the chief means to bring about this desirable end, are frequent social meetings and regularly organized Societies; a part of whose beneficial operations would be an agreement on a suitable standard of medical education, and a code of medical ethics.

Greatly increased influence for the entire body of the profession will be acquired by a union for the purposes of common benefit and the general good; while to its members, individually, will be insured a more pleasant and harmonious intercourse one with another, and an avoidance of many heart-burnings and jealousies, which originate in misconception, through misrepresentation on the part of individuals in general society, of each other's disposition, motives and conduct.

In vain will physicians appeal to the intelligence and elevated feelings of the members of other professions, and of the better part of society in general, unless they be true to themselves, by a close adherence to their duties, and by firmly yet mildly insisting on their rights; and this not with a glimmering perception and faint avowal, but rather with a full understanding and firm conviction.

Impressed with the nobleness of their vocation, as trustees of science and almoners of benevolence and charity, physicians should use unceasing vigilance to prevent the introduction into their body of those who have not been prepared by a suitably preparatory moral and intellectual training.

No youth ought to be allowed to study medicine whose capacity, good conduct, and elementary knowledge are not equal, at least, to the common standard of academical acquirements.

Human life and human happiness must not be endangered by the incompetency of presumptuous pretenders. The greater the difficulties of medicine, as a science, and the more numerous the complications that embarrass in its practice, the more necessary is it that there should be minds of a high order and thorough cultivation to unravel its mysteries and to deduce scientific order from apparently empirical confusion.

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We are under the strongest ethical obligations to preserve the character which has been awarded by the most learned men and best judges of human nature, to the members of the medical profession, for general and extensive knowledge, great liberality and dignity of sentiment, and prompt effusions of beneficence.

In order that we may continue to merit these praises, every physician, within the circle of his acquaintance, should impress both fathers and sons with the range and variety of medical study, and with the necessity of those who desire to engage in it, possessing, not only preliminary knowledge, but likewise some habits of regular and systematic thinking.

If able teachers and writers, and profound inquirers, be still called for to expound medical science, and to extend its domain of practical application and usefulness, they cannot be procured by intuitive effort on their own part, nor by the exercise of the elective suffrage on the part of others. They must be the product of a regular and comprehensive system,—members of a large class, from the great body of which they only differ by the force of fortuitous circumstances, that gives them a temporary vantage ground for the display of qualities and attainments common to their brethren.

JOHN BELL, M. D.

(Continued from page 144)

President, President-Elect, two Vice-Presidents, a Secretary-Treasurer, a Parliamentarian, and one Councilor for each congressional district in the State.

Sec. 2. The officers, except the Secretary-Treasurer, Parliamentarian and Councilors, shall be elected annually, provided that after the annual meeting of 1928 a President-Elect and not a President shall be elected annually. The President-Elect shall assume his office as President immediately after the next annual meeting following his election. The terms of the Councilors shall be for three years, as may be arranged, viz: the Councilor for the first, second, third and four districts for three years; those for the fifth, sixth, seventh, and eighth districts for one year; those for the ninth and tenth districts for two years. The Secretary-Treasurer shall be elected for a term of five years, and the Parliamentarian for a term of three years. All these officers shall serve until their successors are elected and installed (1933).

Sec. 3. The officers of this Association shall be elected by ballot. The nomination for office shall be made orally, on the first day of the annual session immediately after the response to the address of welcome and just before the first paper of the scientific program. The nominating speech shall not exceed two minutes.

The Councilors shall be nominated at the same time by their respective district societies, but if no nomination from a district society is brought before the Association, the nomination for Councilor may be presented from the floor.

A locked ballot box shall be set up by 12:00 noon of the first day of the annual scientific session, at the registration booth. Official ballots, with a blank space for writing in the name of the candidate for each office, shall be printed and kept in the custody of the Secretary-Treasurer, who shall check the eligibility of each voter before handing him an unnumbered ballot. Votes shall be deposited in the locked ballot box.

Voting shall take place during the hours the scientific program is in session, from 12:00 noon on the first day of the annual session until 10:30 a.m. of the third day of the annual session. A committee, appointed by the President, shall count the votes in the ballot box at 10:30 a.m. of the last day of the annual session and report their findings to the Association. The candidate receiving the highest number of votes shall be declared elected.

Delegates to the American Medical Association shall be elected at the same time and in the same manner.

ARTICLE X.—FUNDS AND EXPENSES

Funds shall be raised by an equal per capita assessment on each component society. The amount of the assessment shall not exceed the sum of \$10.00 per capita per annum. Funds may be appropriated by the House of Delegates to defray the expenses of the Association, for publications, and for such other purposes as will promote the welfare of the profession. All resolutions appropriating funds must be approved by the Finance Committee before action is taken thereon.

ARTICLE XI.—RATIFICATION

The House of Delegates shall submit all questions before it to the Association for ratification.

ARTICLE XII.—THE SEAL

The Association shall have a common seal, with power to break, change or renew the same at pleasure.

ARTICLE XIII.—AMENDMENTS

Any amendment that may be offered to the Constitution shall lie over until the next annual session; and for its adoption at such session shall require a two-thirds vote of all present and voting.

By-Laws

CHAPTER I.—MEMBERSHIP

Section 1. The name of a physician on the properly certified roster of members of a component society, which has paid its annual assessment, shall be *prima facie* evidence of membership in this Association.

Sec. 2. Any person who is under sentence of suspension or expulsion from a component society or whose name has been dropped from its roll of members, shall not be entitled to any of the rights or benefits of this Association, nor shall he be permitted to take part in any of its proceedings until he has been relieved of such disability.

Sec. 3. Each member in attendance at the annual session shall enter his name on the registration book, indicating the component society of which he is a member. When his right to membership has been verified by reference to the roster of his society, he shall receive a badge which shall be evidence of his right to all the privileges of membership at that session. No member shall take part in any of the proceedings of an annual session until he has complied with the provisions of this section.

Sec. 4. Special membership. In addition to *Regular* members, component societies may elect to membership in their organizations, for membership in this Association, the following groups of members:

(a) *Honorary members.* Any member for old age, length of service, or other good reasons, may be elected an honorary member of his county medical society, for membership in this Association. Such member shall, after election, be issued a certificate of honorary membership in this Association.

Non-resident physicians and resident or non-resident lay persons who have distinguished themselves in fields of endeavor devoted to the advancement of human welfare, may be nominated by county medical societies, or by the House of Delegates of this Association, for honorary membership in this Association. A county medical society shall not nominate for this class of membership more than one person each year. The name of such person shall be sent to the Secretary-Treasurer of this Association thirty days in advance of the annual session. Such person shall be issued an appropriate certificate of honorary membership in this Association if, and when, he is elected to honorary membership by this Association.

(b) *Associate members.* Eligible to this classification are (1) those regular members of component societies to whom the payment of dues would be an undue hardship; (2) interns, and (3) commissioned medical officers (see Chapter VII, Sec. 5 of these By-Laws) of the United States Army, the United States Navy and the United States Public Health Service while engaged actively in their respective services or if they have been retired on account of age or physical disability, or

after long and honorable service, under the provisions of an Act of Congress.

(c) Honorary and Associate members shall not be subject to the payment of dues to the State Association. They shall enjoy the privileges of full participation in the scientific, social and educational activities of this Association. They shall not vote nor hold office and do not receive the JOURNAL or benefits of Medical Defense.

Sec. 5. Any physician applying for membership in a component medical society of this Association, who has previously practiced in a county in which affiliation with a component society is provided, and who moves to another county without having affiliated with the medical society in the jurisdiction of previous residence, before he is admitted to membership, the cause of his lack of affiliation in the society of his previous residence shall be ascertained.

CHAPTER II.—GENERAL MEETINGS

Section 1. All registered members may attend and participate in the proceedings and discussions of the general meetings. Visitors duly accredited to represent the associations of other states, or of the District of Columbia, not exceeding two in number for each organization, may attend upon, and participate in, the discussion of the general meeting, but shall not have a vote. Such delegates may read papers upon invitation of the Committee on Scientific Work. The general meetings shall be presided over by the President or by one of the Vice-Presidents.

Sec. 2. No papers or addresses before the Association, except those of the President and invited essayists, shall occupy more than fifteen minutes in their delivery; and no member shall speak longer than five minutes, nor more than once on any subject, provided that each essayist shall have five minutes in which to close the discussion of his paper.

Sec. 3. Entertainment. Any social entertainment which may be given by this Association shall be confined to the evening of the second day.

Sec. 4. *Guests.* Any physician not a resident of this State but a member of his state association, or any distinguished scientist not a physician, may be counted a guest during any annual session on invitation of the President, and shall be accorded the privilege of participating in the scientific work of that session.

CHAPTER III.—HOUSE OF DELEGATES

Section 1. The House of Delegates shall meet on the day preceding the first day of the annual session, the time to be fixed by the Committee on Scientific Work. It may adjourn from time to time as may be necessary to complete its business; provided that its hours shall conflict as little as possible with the general meetings. The order of business shall be arranged as a separate section of the program.

Sec. 2. Each component county society shall be entitled to send to the House of Delegates each year one delegate for every fifty members, and one for each fraction thereof, but each component society which has made its annual report and paid its assessment as provided in this Constitution and By-Laws shall be entitled to one delegate. Should the regular delegates from any county not be present at the meeting, the President shall appoint a substitute from that county to act.

Sec. 3. Twenty delegates present shall constitute a quorum.

Sec. 4. It shall, through its officers, council and otherwise, give diligent attention to and foster the scientific work and spirit of the Association, and shall constantly study and strive to make each annual session a stepping-stone to future ones of higher interest.

Sec. 5. It shall consider and advise as to the material interest of the profession, and of the public in those important matters wherein it is dependent on the profession, and shall use its influence to secure and enforce all proper medical and public health legislation, and to diffuse popular information in relation thereto.

Sec. 6. It shall make careful inquiry into the condition of the profession of each county in the State, and shall have authority to adopt such methods as may be deemed most efficient for building up and increasing the interest of such county societies as already exist, and for organizing the profession in counties where societies do not exist. It shall especially and systematically endeavor to promote friendly intercourse among physicians of the same locality, and shall continue these efforts until, if possible, every physician in every county of the State has been brought under medical society influence.

Sec. 7. It shall encourage post-graduate and research work as well as home study, and shall endeavor to have the results utilized, and intelligently discussed in the county societies.

Sec. 8. It shall divide the State into councilor districts, one for each congressional district, and when the best interests of the Association and profession will be promoted thereby, organize in each a district medical society, and all members of component county societies and no others shall be members in such district societies.

Sec. 9. It shall have authority to appoint committees for special purposes from among members of the Association who are not members of the House of Delegates. Such committees shall report to the House of Delegates and may be present and participate in the debate thereon.

CHAPTER IV.—DUTIES OF OFFICERS

Section 1. The President shall preside at all meetings of the Association and of the House of Delegates; shall appoint all committees not otherwise provided for, and shall perform such other duties as custom and parliamentary usage may require. He shall be the real head of the profession of the State during his term of office, and as far as practicable, shall visit, by appointment, the various sections of the State and assist the Councilors in building up the county societies, and in making their work more practical and useful.

In order to give him a better opportunity of becoming more fully acquainted with his duties and with the needs of the Association, the President shall be elected one year prior to taking office. During this time he shall be known as President-Elect and shall be ex-officio member of standing committees, and shall make recommendations at the next annual session.

Sec. 2. The Vice-Presidents shall assist the President in the discharge of his duties. In the event of the President's death, resignation or removal, the Vice-Presidents, in their order, shall succeed him.

Sec. 3. The Secretary-Treasurer shall give bond in the sum of One Thousand Dollars. He shall demand and receive all funds due the Association, together with the bequests and donations.

Sec. 4. The Secretary-Treasurer shall attend the general meetings of the Association and the meetings of the House of Delegates, and shall keep the minutes of their respective proceedings in separate record books. He shall be ex-officio Secretary of the Council. He shall be custodian of all record-books and papers belonging to the Association. He shall provide for the registration of the members, delegates and accredited visitors at the annual session. He shall, with the cooperation of the secretaries of the component societies, keep a card-index register of all the legal practitioners of the State by counties, noting on each his status in relation to his county society, and on request transmit a copy of this list to the American Medical Association. He shall aid the Councilors in the organization and improvement of the county societies in the extension of the power and usefulness of this Association. He shall conduct the official correspondence, notifying members of meetings, officers of their election, and committees of their appointments and duties. He shall employ such assistants as may be ordered by the House of Delegates with the approval of the Association, and shall make an annual report to the Association. He shall supply each component society with the necessary blanks for making their annual reports; shall keep an account with the component societies, charging against each society its assessment and collect the same. Acting with the Committee on Scientific Work, he shall prepare and issue all programs. The amount of his salary shall be fixed by the Association. He shall be editor of the *JOURNAL OF THE MEDICAL ASSOCIATION OF GEORGIA*. He shall employ such assistants as may be ordered by the Council or the House of Delegates. He shall annually make a report of his doings to the House of Delegates.

He shall furnish a balance sheet at each annual meeting for the past fiscal year to be published in the *JOURNAL*. This shall consist of an itemized statement of all financial transactions of the past year, all accounts made, money received and from whom, all moneys disbursed, to whom, and for what purpose, with vouchers attached. A fiscal year includes the period of time between the first day of May and the last day of April.

CHAPTER V.—COUNCIL

Section 1. The Council shall meet on the day preceding the annual session and daily during the session, and at such other times as necessity may require, subject to the approval of the President. It shall meet on the last day of the annual session of the Association to organize and outline work for the ensuing year. It shall elect a chairman and clerk, who, in the absence of the Secretary of the Association, shall keep a record of its proceedings. It shall, through its chairman, make an annual report to the House of Delegates. It shall be the business body of the Association and attend to the business of the Association in the interim between meetings.

Sec. 2. Each Councilor shall be organizer and peacemaker for his district. He shall visit each county in his district at least once a year for the purpose of organizing component societies where none exist, for inquiring into the conditions of the profession, and for improving and increasing the zeal of the county societies and their members. He shall make an annual report of his work and of the condition of the profession of each county in

his district at the annual session of the House of Delegates. The necessary traveling expenses incurred by such Councilor in the line of the duties herein imposed may be allowed by the House of Delegates on a properly itemized statement, but this shall not be considered to include his expense in attending the annual session of the Association. Each Councilor may appoint a Vice-Councilor to assist him in the performance of his duties in his district.

Sec. 3. The Council shall be the board of censors of the Association. It shall consider all questions involving the right and standing of members, whether in relation to the members, to the component societies, or to this Association. All questions of an ethical nature brought before the House of Delegates or the general meeting shall be referred to the Council without discussion. It shall hear and decide all questions of discipline affecting the conduct of members of a component society, on which an appeal is taken from the decision of an individual Councilor, or to which attention has been called by the Councilor or interested members. It shall hear and decide all questions affecting unethical conduct on the part of any member of any annual session, and its decision in all such matters shall be final when ratified by the Association.

Sec. 4. In sparsely settled sections it shall have authority to organize the physicians of two or more counties into societies, to be suitably designated so as to distinguish them from district societies, and the societies, when organized and chartered, shall be entitled to all rights and privileges provided for component societies until such counties shall be organized separately.

Sec. 5. The Council shall provide for and superintend the publication and distribution of all proceedings, transactions and memoirs of the Association, and shall have authority to appoint such assistants to the editor as it deems necessary. It shall manage and conduct the *JOURNAL OF THE MEDICAL ASSOCIATION OF GEORGIA*, which is the organ of the Association, and all money paid into the treasury as dues shall be received as subscriptions to the *JOURNAL*.

All money received by the Council and its agents, resulting from the discharge of the duties assigned to them, must be paid to the Secretary-Treasurer of the Association. As the Finance Committee it shall annually audit the accounts of the Secretary-Treasurer and other agents of this Association, and present a statement of the same in its annual report to the House of Delegates, which report shall also specify the character and cost of all the publications of the Association during the year, and the amount of all other property belonging to the Association under its control, with such suggestions as it may deem necessary. In the event of a vacancy in the office of the Secretary-Treasurer, the Council shall fill the vacancy until the next annual election.

Sec. 6. All reports on scientific subjects and all scientific discussions and papers heard before the Association, shall be referred to the *JOURNAL OF THE MEDICAL ASSOCIATION OF GEORGIA* for publication. The editor, with the consent of the Councilor for the district in which he resides, may curtail or abstract papers or discussions, and the Council may return any paper to its author which it may consider not suitable for publication.

Sec. 7. All commercial exhibits during the annual sessions shall be within the control and direction of the Council.

Sec. 8. In the absence of a Councilor and Vice-Councilor the President is empowered to appoint a representative from the district as acting Councilor, who shall have full rights and powers of a Councilor.

Sec. 9. Each Councilor shall render at every session a written report of each county in his district.

Sec. 10. Any member of the Council who fails to attend two regular successive sessions of the Council, or whose district does not show evidence of the performance of his duties during the year, unless he renders an acceptable excuse to the Council, is subject to have his position declared vacant by the President and a successor appointed by the President.

CHAPTER VI.—COMMITTEES

Section 1. The standing committees shall be as follows:

A Committee on Scientific Work.

A Committee on Public Policy and Legislation.

A Committee on Arrangements.

A Committee on Medical Defense, and such other committees as may be necessary.

Sec. 2. The Committee on Scientific Work shall consist of four members, one of whom shall be the Secretary-Treasurer. The other three members shall be appointed for terms of one, two, and three years, respectively. The vacancy which will occur each year by the expiration of the term of one member shall be filled by the President with an appointment of three years. The member who has the shortest time to serve shall be chairman. The committee shall determine the character and scope of the scientific proceedings of the Association for each session. Thirty days previous to each annual session it shall prepare and issue a program announcing the order in which papers, discussions and other business shall be presented.

This By-Law shall not prohibit the Committee on Scientific Work from inviting not more than two distinguished members of the national organization to deliver addresses or read papers at any annual meeting.

Sec. 3. The Committee on Public Policy and Legislation shall consist of three members and the President and Secretary, the Commissioner of Health of the State of Georgia, and a sub-committee of three members from each Councilor District appointed by the chairman when needed. It shall represent the Association in securing and enforcing legislation in the interests of public health and of scientific medicine. It shall keep in touch with professional and public opinion, shall endeavor to shape legislation so as to secure the best results for the whole people, and shall strive to organize professional influence so as to promote the general good of the community in local and national affairs and elections.

Sec. 4. The Committee on Arrangements shall be appointed by the component society in which the annual session is to be held. It shall provide suitable accommodations for the meeting places of the Association and of the House of Delegates and their respective committees, and shall have general charge of all arrangements. Its chairman shall report an outline of the arrangements to the Secretary-Treasurer for publication in the program, and shall make additional announcements during the session as occasion may require.

Sec. 5. The Committee on Medical Defense shall consist of five members, of whom the Chairman of the Council and the Secretary-Treasurer of the Association shall be members. The other members, one of whom shall act as chairman of the committee, shall be elected by the Council for a period of five years. Those elected at this meeting (April 19, 1916), shall serve one, three and five years, respectively.

It shall be the duty of the Committee on Medical Defense to investigate and defend all damage suits against the Medical Association of Georgia; to investigate all claims of civil malpractice made against its members, to take full charge of such cases, which after investigation they decide to be proper cases for defense; to defend all such cases in the courts of last resort, to furnish General Counsel and pay court cost usual to such litigation, and reasonable fees for local attorneys as shall be arranged by General Counsel. Provided that any member who has indemnity insurance shall have such insurance bear its portion of the expense. However, they shall not pay, or obligate the Medical Association of Georgia to pay any judgment rendered against any member upon the final determination of any case. They shall be empowered to contract with such agents or attorneys as they may deem necessary for the proper carrying out of this By-Law.

The assistance for defense, as herein provided, shall be available only to members of the Medical Association of Georgia in good standing. Any member who has not paid his annual dues by April 1st shall not be considered in good standing in the application of this By-Law.

Any member or members of the Association threatened with suit for civil malpractice shall immediately communicate with the Secretary of the Association and shall give full and complete information in reference to all the circumstances alleged in the complaint. The Secretary shall proceed immediately to investigate the circumstances reported and shall advise with the attorneys or agents employed by the committee for this purpose. The members sued, or threatened with suit, shall be consulted and shall have the complete confidence of the committee in all transactions connected with the investigation in question. The committee shall have the authority to require of a constituent society or the president thereof, the appointment of a committee of investigation in any such case, and it may direct the committee so appointed to report to the Committee on Medical Defense and not to the society from which it was appointed.

The Committee on Medical Defense may also, at its discretion, arrange to prosecute illegal practitioners in the State of Georgia and assist in the enforcement of the Medical Practice Act of this State.

CHAPTER VII.—COUNTY SOCIETIES

Section 1. All county societies now in affiliation with this Association, or those which may hereafter be organized in the State, which have adopted principles of organization not in conflict with this Constitution and By-Laws, shall, on application, receive a charter from and become a component part of this Association.

Sec. 2. As rapidly as can be done after the adoption of this Constitution and By-Laws, a medical society shall be organized in every county in the State in

which no component society exists, and charter shall be issued thereto.

Sec. 3. Charters shall be issued only on approval of the Council, and shall be signed by the President and Secretary of this Association. The Association shall have authority to revoke the charter of any component society whose actions are in conflict with the letter or spirit of this Constitution and By-Laws.

Sec. 4. Only one component medical society shall be chartered in any county.

Sec. 5. Each county society shall judge of the qualifications of its own members, but as such societies are the only portals to this Association, every legally registered white physician who does not practice or claim to practice, nor lend his support to any exclusive system of medicine, shall be eligible to membership. Physicians who have been legally registered in other states or who have been licensed by the National Board of Medical Examiners, or who are employed as teachers in the medical schools, or are in the service of the State, a county, a municipality, or the United States Government other than the regular medical corps of the United States Army, the United States Navy and of the United States Public Health Service, may be accepted for membership in county medical societies, for membership in this Association, provided they meet the requirements of regular membership. Before a charter is issued to any county medical society, full and ample notice and opportunity shall be given to every such physician in the county to become a member.

Sec. 6. No matter what the unethical conduct or discipline of the members of the county society may be, both plaintiff and defendant shall have the right to appeal to the Council, whose decision shall be final when ratified by the Association.

Sec. 7. In hearing appeals the Council may admit oral or written evidence, as in its judgment will best and most fairly present the facts, but in case of every appeal, both as a board and as individual Councilors in district and county work, efforts at conciliation and compromise shall precede all such hearings.

Sec. 8. When a member in good standing in a component county society moves to another county in this State, he shall be given a written certificate of these facts by the secretary of his society, without cost, for transmission to the secretary of the society in the county to which he moves. Pending his acceptance or rejection by the society in the county to which he moves, such member shall be considered to be in good standing in the county society from which he was certified and in the Medical Association of Georgia to the end of the period for which his dues have been paid.

Sec. 9. A physician living on or near a county line may hold his membership in that county most convenient for him to attend, on permission of the component society in which jurisdiction he resides.

10. Each component society shall have general direction of the affairs of the profession in its county, and its influence shall be constantly exerted for bettering the scientific, moral and material conditions of every physician in the county; and systematic efforts shall be made by each member and by the society as a whole, to increase the membership until it embraces every qualified physician in the county.

Sec. 11. At some meeting in advance of the annual

session of this Association each county society shall elect a delegate or delegates to represent it in the House of Delegates of this Association, in the proportion of one delegate to each fifty members, or fraction thereof, and the Secretary of the society shall send a list of such delegates to the Secretary of this Association at least ten days before the annual session.

Sec. 12. The Secretary of each component society shall keep a roster of its members, and of the non-affiliated registered physicians of the county, in which shall be shown the full name, address, college and date of graduation, date of license to practice in this State, and such other information as may be deemed necessary. In keeping such roster the Secretary shall note any changes in the personnel of the profession by death, or by removal to or from the county, and in making his annual report he shall be certain to account for every physician who has lived in the county during the year.

Sec. 13. The Secretary of each component society shall forward its assessment, together with its roster of officers and members, list of delegates, and list of non-affiliated physicians of the county, to the Secretary of this Association each year thirty days before the annual session.

Sec. 14. Any county society which fails to pay its assessment, or make the report required on or before April 1 of each year, shall be held as suspended, and none of its members or delegates shall be permitted to participate in any of the business or proceedings of the Association, or of the House of Delegates, until such requirement has been met.

Sec. 15. The Secretary of each county society shall report to the JOURNAL OF THE MEDICAL ASSOCIATION OF GEORGIA full minutes of each meeting and forward to it all scientific papers and discussions which the society shall consider worthy of publication.

CHAPTER VIII.—RULES AND ETHICS

Section 1. The deliberations of this Association shall be governed by parliamentary usage as contained in Robert's Rules of Order, when not in conflict with this Constitution and By-Laws.

Sec. 2. All papers read before the Association shall become its property. Each paper shall be deposited with the Secretary when read, and if this is not done it shall not be published.

Sec. 3. The principles of medical ethics of the American Medical Association shall be those of this Association.

Sec. 4. Any member of this Association, on locating in a new place for practicing his profession, may place his professional card, containing name, address, telephone number, and statement as to whether or not his practice will be limited to any particular class of diseases, in the local paper for a period of not longer than one month. The placing of such card for this period of time shall not be considered unethical. The use of the word "specialist" by any member in connection with his name in any newspaper, telephone directory, or other public places, shall be considered unethical.

CHAPTER IX.—AMENDMENTS

These By-Laws may be amended at any annual session by a majority vote of the Association after the amendment has lain on the table for one day.

RESOLUTIONS,
MEDICAL ASSOCIATION OF GEORGIA

1921

Resolved. That a member who sends in a title of a paper to be placed on the program and is not present to read the paper, shall pay the penalty of not having an opportunity to appear on the program for two years, unless he presents an excuse acceptable to the Committee on Scientific Work.

1922

Be it Resolved. That the House of Delegates recommend that the Committee on Scientific Work make available on the program of the State Association space for two papers from each Council district; that a definite time be assigned for reading and discussion of each of these papers, and they be given precedence over all other business. The said papers are to be selected by the Committee on Scientific Work, and, in case a writer does not respond when his name is called, some paper will be substituted and the schedule not deranged. The President ruled that this resolution is only a recommendation and not a law.

1928

Resolved, That the delegates to the A. M. A. elected at this and succeeding meetings of the Medical Association of Georgia be installed January 1st, following their election, and that their term of service run for two years thereafter. And be it further

Resolved, That our delegates be authorized to attend the regular and any called meeting of the House of Delegates of the American Medical Association during the term to which they are elected.

1929

Resolved, That in order to expedite the business of the House of Delegates, all reports of special and regular committees of the Association involving matters of public policy, legislation or appropriation of the funds of the Association be submitted in writing to the Secretary of the Association a sufficient time in advance of the regular annual session, about March 15th, to permit the publication of said recommendations either in the official program prior to the session, or in a special circular that shall be mailed to the constituent societies, in order that the delegates may be advised of the proposed changes.

1948

Resolved, That the House of Delegates set the amount of dues at \$10.00 per capita for the year 1949.

LOOKING FORWARD

As I begin the steep descent I am all the more resolved that the medical profession should lead the list of all professions, not excepting the clergy, in an altruistic service to suffering mankind. It should remain ironclad in its ethics, forsaking commercialistic tendencies, and devoted to the highest ideals of sacrifice, even unto physical exhaustion and death if need be, to carry on for those who love and trust them as no other class of men can inspire devotion. My richest rewards now are treasured in the hearts of those I have humbly served.

—JOHN W. SIMMONS, M.D.,
Brunswick.

(From the *Journal of the Medical Association of Georgia*, vol. xxx, April 1941.—Ed.)

GEORGIA PHYSICIANS WHO HAVE
PRACTICED MEDICINE FIFTY
YEARS OR MORE

Adair, Robert Edgar, Cartersville
Barton, John James, Dublin
Bivings, William Troy, Atlanta
Boynton, Charles Edward, Atlanta
Brawner, James Newton, Atlanta
Bussell, James Alexander, Rochelle
Casteel, Lewis Ryley, Washington
Catron, Isaac Thomas, Atlanta
Champion, William Leon, Atlanta
Chandler, William Vance, Baldwin
Collins, Katherine Richards, Turnerville
Daniel, Bluefort C., Hogansville
Daniel, James Wallace, Claxton
Daniel, John William, Savannah
Darden, Horace, Sparta
Dillard, James Bascom, Davisboro
Dorminy, James Norwood, Cordele
Dykes, Monroe W., Whigham
Edge, John Hunter, Atlanta
Fischer, Luther C., Atlanta
Fleming, Albert, Folkston
Garrard, James Isaac, Milledgeville
Giddings, Charles Glenville, Atlanta
Goldsmith, William Stokes, Stone Mountain
Good, John Wilson, Cedartown
Goolsby, Robert Cullen, Sr., Forsyth
Harper, Aubrey, Wray
Harriss, Henry Terrell, Washington
Huguley, George Pope, Atlanta
Hull, Marion McHenry, Atlanta
Jenkins, Matthew Kenchen, Atlanta
Jernigan, Charles Sterling, Sparta
Johnson, James Clarence, Atlanta
Johnson, Joseph Eggleston, Elberton
Jones, Jabez, Savannah
Kenyon, John Marcus, Richland
Kilpatrick, Andrew Jones, Augusta
Michel, Henry Middleton, Augusta
Mixson, William Daniel, Waycross
Mobley, H. A., Vienna
Moore, Russell Malachi, Waleska
Moore, William A., Alapaha
Mountain, George W., Augusta
Murphrey, Eugene Edmund, Augusta
Osborne, Elton Smith, Savannah
Palmer, Jarrett William, Ailey
Parker, George M., Carnesville
Parker, George R. Enigma
Perkinson, William Howard, Marietta
Pickett, Franklin Brown, Ty Ty
Quillian, Edgar Pierce, Clyattsville
Rogers, Floy Sterling, Coleman
Rogers, Oscar Leslie, Sandersville
Sharp, Cyrus Kosciusko, Arlington
Shepard, William Marshall, Adel
Simpson, Addison Wingfield, Washington
Smith, Amos Clark, Elberton
Smith, Edward Joseph, Sr., Hahira
Story, Warren L., Ashburn
Strickler, Cyrus Warren, Atlanta
Tankersley, James S., Ellijay
Van Dyke, Arthur Hamilton, Atlanta
Visanska, Samuel Albert, Atlanta
Whipple, Robert LaFayette, Cochran

PRESIDENT'S PAGE

OUR CENTENNIAL MEETING

In Savannah, May 10-13, the founders of the Medical Association of Georgia will be signally honored during the centennial session.

The one hundred years since that memorable March 20, 1849, has seen great effort expended to improve Georgia's health. The colonial doctor riding through driving rains and scorching sun, over mountain trails and hazy swamp lands, with his medical and surgical equipment stuffed into his saddle bags, blazed the trail for his more erudite followers. The rugged physician struggled ever forward, inspired by a tenacious zeal to alleviate suffering and to conquer disease. By his careful ministrations, to pain-racked bodies, and by his considerate actions toward anxious loved ones he brought, more often than is recorded, true spiritual comfort to patients and friends. The first fifty years of the history of the Medical Association of Georgia show a long record of many physicians, all traveling on horseback or in buggies, without the aid of the telephone or the help of the laboratories but all with the determination of crusaders.

The fiftieth session of the Medical Association of Georgia was held in Macon. The founders of the Association were honored at that convention and some had lived to be present at the half-century mark. In Savannah this May 1949 there will be in attendance some of the members who participated in the 1899 meeting.

No greater honor could be bestowed upon an organization than the privilege of dedicating a great convention to the achievements of its founders! As we honor them, we honor those of the present whom they inspired to carry on the practice of the healing art. In this group are about seventy men in Georgia who have practiced medicine for fifty years or more. These physicians of Georgia have worked long and faithfully. They have fought plagues, and battled epidemics; they have suffered physical hardships and have endured mental and financial depressions, but they came through with faith renewed and with the trust, vested in them by the founders

of our great Association, held inviolate. These "Fifty-Year Physicians" will be presented with certificates of distinction and gold lapel buttons as a special feature of the annual banquet, to be held Thursday night, May 12.

In this issue of *The Journal* appears the official program of the Centennial Session. The essayists and the subjects to be presented are indicative of the good work of the program committee. Several guest speakers will add luster to the well-rounded program. The delightful entertainment, planned by the host society, will have that zest and brilliance found always in Savannah.

All available space for the instructive scientific exhibits and technical displays has been taken. The hotel accommodations are rapidly filling and it is predicted that very few Georgia doctors will be absent.

Since the meeting of the House of Delegates will be unusually interesting, it is hoped that every delegate will attend this session.

The satisfactory progress made in legislation, and the earnest cooperation of our members in the General Assembly, will be reported to the convention. All committee reports will show that the Association has enjoyed a busy and profitable year.

The Woman's Auxiliary, in addition to supplying gracious entertainment, has come through with a remarkable record of achievement in health education, and active participation in support of good legislative measures.

It has been an honor and pleasure to step behind the scenes and get a "close-up" of the activities of the Association. Here can be seen the continual effort evidenced by members to improve their professional skill; the universal desire to make available the best medical and hospital care for all our people.

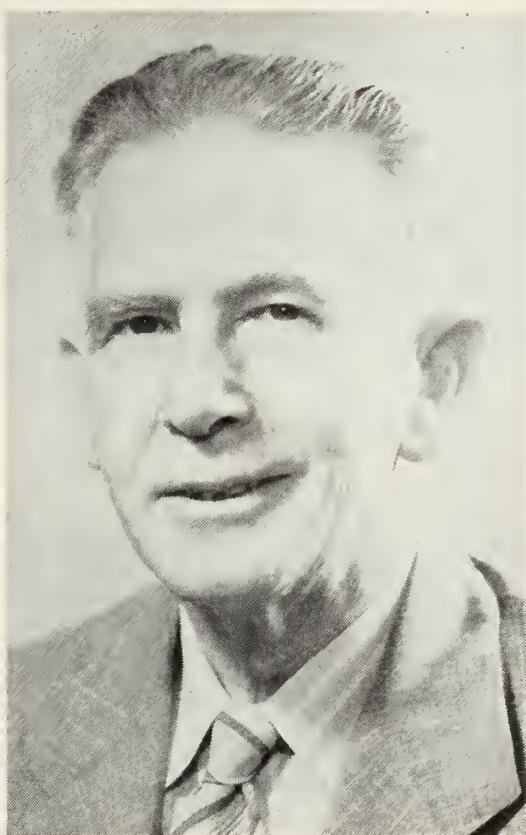
The fine spirit of loyalty and cooperation makes one proud to be a member of the Medical Association of Georgia. It will be an enviable privilege to attend its brilliant Centennial Celebration!

EDGAR H. GREENE, M.D.

OFFICERS OF THE MEDICAL ASSOCIATION OF GEORGIA



EDGAR HILL GREENE, M. D.
Atlanta
President, 1948-1949



ENOCH CALLAWAY, M. D.
LaGrange
President-Elect 1948-1949



Eustace A. Allen, M. D.
Atlanta
First Vice-President



F. H. Simonton, M. D.
Chickamauga
Second Vice-President



Edgar Shanks, M.D., Atlanta
Secretary-Treasurer and
Editor of The Journal



John W. Simmons, M.D.
Brunswick, Parliamentarian

The officers of the Medical Association of Georgia urge its members to attend the Ninety-Ninth Annual Session of the Association, Savannah, May 10-13, 1949. Note pages 183-185 of this *Journal*.

The House of Delegates will convene, Tuesday, May 10, at 2:00 p.m. at the Hotel DeSoto. The scientific session will open May 11 at 8:30 a.m., at the Hotel DeSoto.



Allen H. Bunce, M.D.
Atlanta
Delegate to the A.M.A.



Olin H. Weaver, M.D.
Macon
Delegate to the A.M.A.
(Deceased)



Benj. H. Minchew, M.D.
Waycross
Delegate to the A.M.A.



Wm. R. Dancy, M.D.
Savannah
Alt. Delegate to the A.M.A.



Walter W. Daniel, M.D.
Atlanta
Alt. Delegate to the A.M.A.



C. K. Sharp, M.D.
Arlington
Alt. Delegate to the A.M.A.



Lee Howard, M.D.
Savannah
Councilor, First District



C. K. Wall, M.D.
Thomasville
Councilor, Second District



W. G. Elliott, M.D.
Cuthbert
Councilor, Third District



Kenneth S. Hunt, M.D.
Griffin
Councilor, Fourth District



Marion C. Pruitt, M.D.
Atlanta
Councilor, Fifth District



H. D. Allen, Jr., M.D.
Milledgeville
Councilor, Sixth District



Wm. H. Perkins, M.D.
Marietta
Councilor, Seventh District



Wm. F. Reavis, M.D.
Waycross
Councilor, Eighth District



C. B. Lord, M.D.
Jefferson
Councilor, Ninth District



H. L. Cheves, M.D.
Union Point
Councilor, Tenth District



Chas. T. Brown, M.D.
Guyton
Vice-Councilor, First District



Chas. H. Watt, M.D.
Thomasville
Vice-Councilor, Second District



Guy J. Dillard, M.D.
Columbus
Vice-Councilor, Third District



J. W. Chambers, M.D.
LaGrange
Vice-Councilor, Fourth District



Spencer A. Kirkland, M.D.
Atlanta
Vice-Councilor, Fifth District



H. G. Weaver, M.D.
Macon
Vice-Councilor, Sixth District



D. Lloyd Wood, M.D.
Dalton
Vice-Councilor, Seventh District



Alton M. Johnson, M.D.
Valdosta
Vice-Councilor, Eighth District



D. H. Garrison, M.D.
Clarkesville
Vice-Councilor, Ninth District

J. Victor Roule
Augusta
Vice-Councilor, Tenth District



Viola Berry
Atlanta
Executive Secretary

NINETY-NINTH ANNUAL SESSION Savannah

May 10, 11, 12, 13, 1949

OFFICERS AND COMMITTEES, 1949

Officers

President	Edgar H. Greene, Atlanta
President-Elect	Enoch Callaway, LaGrange
First Vice-President	Eustace A. Allen, Atlanta
Second Vice-President	F. H. Simonton, Chickamauga
Parliamentarian	Jno. W. Simmons, Brunswick
Secretary-Treasurer	Edgar D. Shanks, Atlanta

Delegates to A.M.A.

B. H. Minchew (1948-1950)	Waycross
Alternate, Wm. R. Dancy	Savannah
Allen H. Bunce (1948-1950)	Atlanta
Alternate, Walter W. Daniel	Atlanta
Olin H. Weaver (1948-1950) (Deceased)	Macon
Alternate, C. K. Sharp	Arlington

Council

W. F. Reavis, Chairman	Waycross
Marion C. Pruitt, Clerk	Atlanta

Councilors

1. Lee Howard (1949)	Savannah
2. C. K. Wall (1949)	Thomasville
3. W. G. Elliott (1949)	Cuthbert
4. Kenneth S. Hunt (1949)	Griffin
5. Marion C. Pruitt (1949)	Atlanta
6. H. D. Allen, Jr. (1949)	Milledgeville

7. W. H. Perkinson (1949)	Marietta
8. W. F. Reavis (1949)	Waycross
9. C. B. Lord (1949)	Jefferson
10. Harry L. Cheves (1949)	Union Point

Vice-Councilors

1. Chas. T. Brown (1949)	Guyton
2. C. H. Watt (1949)	Thomasville
3. Guy J. Dillard (1949)	Columbus
4. J. W. Chambers (1949)	LaGrange
5. Spencer A. Kirkland (1949)	Atlanta
6. H. G. Weaver (1949)	Macon
7. D. Lloyd Wood (1949)	Dalton
8. Alton M. Johnson (1949)	Valdosta
9. D. H. Garrison (1949)	Clarkesville
10. J. Victor Roule (1949)	Augusta

Executive Committee

Edgar H. Greene, President	Atlanta
W. F. Reavis, Chairman, Council	Waycross
Edgar D. Shanks, Secretary-Treasurer	Atlanta

Honorary Advisory Board

W. S. Goldsmith	President, 1915-1916
Eugene E. Murphey	President, 1917-1918
J. W. Palmer	President, 1918-1919
J. W. Daniel	President, 1923-1924
Frank K. Boland	President, 1925-1926
C. K. Sharp	President, 1928-1929
Wm. R. Dancy	President, 1929-1930
M. M. Head	President, 1932-1933
C. H. Richardson	President, 1933-1934
Clarence L. Ayers	President, 1934-1935
James E. Paullin	President, 1935-1936
B. H. Minchew	President, 1936-1937
Grady N. Coker	President, 1938-1939
J. C. Patterson	President, 1940-1941
Allen H. Bunce	President, 1941-1942
James A. Redfearn	President, 1942-1943
W. A. Selman	President, 1943-1944
Cleveland Thompson	President, 1944-1946
Ralph H. Chaney	President, 1946-1947
Steve P. Kenyon	President, 1947-1948

GEORGIA MEDICAL SOCIETY

Officers and Committees

President	John L. Elliott, Savannah
President-Elect	H. M. Kandel, Savannah
Vice-President	Ralph O. Bowden, Savannah
Secretary-Treasurer	Sam Youngblood, Jr., Savannah
Historian	Anne Hopkins, Savannah
Delegate	John L. Elliott, Savannah
Alternate Delegate	Ruskin King, Savannah
Alternate Delegate	Harry H. McGee, Savannah

COMMITTEES

All of Savannah General Committee

John L. Elliott, Chairman; Lee Howard, J. E. Porter, and M. J. Epting.

History of Georgia Medical Society

Anne Hopkins, Chairman; Wm. R. Dancy, J. W. Daniel, Jr., and Mrs. J. K. Quattlebaum.

Hotels

W. V. Long, Chairman; L. B. Dunn, and Jules Victor, Jr.

Alumni Dinner

University of Georgia School of Medicine
J. C. Metts, Chairman; J. H. Pinholster, and W. E. Brown.

Alumni Dinner

Emory University School of Medicine
Sam Youngblood, Jr., Chairman; W. V. Long, and L. W. Shaw.

Entertainment

C. F. Holton, Chairman; Ruskin King, C. A. Henderson, J. G. Sharpley, Jr., Harry H. McGee, J. F. Chisholm, J. K. Train, Jr., C. L. Prince, J. C. Metts, and G. H. Lang.

Publicity

T. A. McGoldrick, Jr., Chairman; C. R. A. Redmond, and John Stalvey, Jr.

Transportation

A. F. Williams, Chairman; Leon Holloman, Harold Smith, and L. K. Powers.

MEDICAL ASSOCIATION OF GEORGIA

COMMITTEES

Scientific Work

B. E. Collins, Chairman	Waycross
Carter Smith	Atlanta
W. C. McGeary	Madison
Edgar D. Shanks	Atlanta

Public Policy and Legislation

S. A. Kirkland, Chairman	Atlanta
Jack C. Norris	Atlanta
Edgar H. Greene	Atlanta
T. F. Sellers	Atlanta
Edgar D. Shanks	Atlanta

Medical Defense

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A. R. Rozar	Macon
W. F. Reavis	Waycross
Edgar D. Shanks	Atlanta

Advisory State Board of Health

John B. Fitts, Chairman	Atlanta
H. G. Weaver	Macon
D. H. Garrison	Clarkesville
Marcus Mashburn	Cumming
J. M. Barnett	Albany
O. R. Styles	Cedartown
J. C. Brim	Pelham
C. S. Pittman	Tifton
Clarence L. Ayers	Toccoa
W. G. Elliott	Cuthbert
C. Purcell Roberts	Atlanta
B. Russell Burke	Atlanta

Hospitals

Grady N. Coker, Chairman	Canton
R. H. Oppenheimer	Atlanta
Cleveland Thompson	Millen
L. C. Fischer	Atlanta
L. P. Holmes	Augusta
Ernest F. Wahl	Thomasville
Wadley R. Glenn	Atlanta
Q. A. Mulkey	Millen
Gordon Chason	Bainbridge
J. T. McCall	Rome
Jeff Richardson	Atlanta
T. H. Clark	Douglas
E. F. Thompson	Valdosta
D. Henry Poer	Atlanta
C. H. Richardson, Jr.	Macon

Abner Wellborn Calhoun Lectureship

James E. Paullin, Chairman	Atlanta
J. R. Broderick	Savannah
Eugene E. Murphey	Augusta
Frank K. Boland	Atlanta
Guy O. Whelchel	Athens
J. Calhoun McDougall	Atlanta

Medical Economics

Major Fowler, Chairman	Atlanta
J. C. Brim	Pelham
D. C. Kelley	Lawrenceville
T. J. Busey	Fayetteville
J. C. Keaton	Albany
D. Henry Poer	Atlanta
Marcus Mashburn	Cumming
G. Lombard Kelly	Augusta
Ruskin King	Savannah
Steve P. Kenyon	Dawson
Walter W. Daniel	Atlanta
Russell Thomas	Americus
Hugh G. Mosley	Atlanta

Geo. W. Fuller	Atlanta
Jas. N. Brawner, Jr.	Atlanta

Memorial Exercises

M. Preston Agee, Chairman	Augusta
Ruskin King	Savannah
J. C. Patterson	Cuthbert
George H. Lang	Savannah
Frank K. Boland	Atlanta
A. M. Phillips	Macon
M. T. Edgerton	Atlanta
Marion McH. Hull	Atlanta

Medical History of Georgia

Frank K. Boland, Chairman	Atlanta
Allen H. Bunce	Atlanta
J. Calvin Weaver	Atlanta
Olin H. Weaver (Deceased)	Macon
Eugene E. Murphey	Augusta
William R. Dancy	Savannah
McClaren Johnson	Atlanta

Orthopedics

Fred G. Hodgson, Chairman	Atlanta
Thomas P. Goodwyn	Atlanta
F. Bert Brown	Savannah
J. Hiram Kite	Atlanta
L. H. Muse	Atlanta
Peter B. Wright	Augusta
W. A. Newman	Macon
H. Walker Jernigan	Atlanta
Ed Irwin	Warm Springs
W. L. Funkhouser	Atlanta
Lawson Thornton	Atlanta

Ophthalmology

Zach W. Jackson, Chairman	Atlanta
E. N. Maner	Savannah
W. P. Rhyne	Albany
H. M. Moore	Thomasville
Herschel C. Crawford	Atlanta
C. L. Penington (Deceased)	Macon
S. J. Lewis	Augusta
Mason Baird	Atlanta
F. P. Calhoun, Jr.	Atlanta
Lewis Patton	Athens

Syphilis

Harold P. McDonald, Chairman	Atlanta
J. T. McCall	Rome
Willis P. Jordan	Columbus
Wallace Bazemore	Macon
W. L. Dobcs	Atlanta
J. Z. McDaniel	Albany
Harry Righton	Savannah
R. F. Wheat	Bainbridge
L. W. Pierce	Waycross
Hartwell Joiner	Gainesville
Reese Coleman	Atlanta
Robert Greenblatt	Augusta
Joseph Yampolsky	Atlanta

Industrial Health

J. Harry Rogers, Chairman	Atlanta
Thomas P. Goodwyn	Atlanta
W. W. Chrisman	Macon
L. M. Petrie	Atlanta
W. W. Battey	Augusta
Chas. E. Lawrence	Atlanta
W. A. Newman	Macon
C. F. Holton	Savannah
John P. Garner	Atlanta
W. P. Harbin, Jr.	Rome
Rufus Askew	Atlanta
Harry Talmadge	Athens

Clinical Pathology

Edgar R. Pund, Chairman	Augusta
G. Darrell Ayer, Jr.	Atlanta
A. J. Ayers	Atlanta
Thomas Harrold	Macon
Lee Howard	Savannah
J. M. Feder	Albany
Thomas J. Ferrell	Waycross

Max Mass	Macon	J. Dean Paschal	Dawson	
Jack C. Norris	Atlanta	W. J. Cranston	Augusta	
E. B. Saye	Thomasville	Francis Martin	Shellman	
Charles L. Blumstein	Columbus	T. Luther Byrd	Atlanta	
D. F. Mullins, Jr.	Athens			
<i>Student Loan Fund</i>				
Mrs. Lon King, Chairman	Macon	Jack C. Norris, Chairman	Atlanta	
G. Lombard Kelly	Augusta	Everett L. Bishop	Atlanta	
Richard Hugh Wood	Atlanta	Edgar R. Pund	Augusta	
<i>Scientific Exhibits</i>				
Robert B. Greenblatt, Chairman	Augusta	Lee Howard	Savannah	
J. E. Scarborough	Emory University	Cleveland Thompson	Millen	
Marion T. Benson, Jr.	Atlanta	J. M. Barnett	Albany	
Lee Howard	Savannah	R. C. Pendergrass	Americus	
Helen W. Bellhouse	Thomasville	J. G. McDaniel	Atlanta	
J. K. Quattlebaum	Savannah	W. F. Jenkins	Columbus	
J. Hiram Kite	Atlanta	James J. Martin	Atlanta	
Don F. Cathcart	Atlanta	B. T. Beasley	Atlanta	
Clair Henderson	Savannah	Enoch Callaway	LaGrange	
Estelle P. Boynton	Atlanta	R. H. McDonald	Newnan	
<i>Medical Preparedness</i>				
W. A. Selman, Chairman	Atlanta	James J. Clark	Atlanta	
John B. Fitts	Atlanta	J. E. Scarborough	Emory University	
Edgar D. Shanks	Atlanta	O. C. Woods	Milledgeville	
<i>Post-Graduate Study</i>				
G. Lombard Kelly, Chairman	Augusta	D. Lloyd Wood	Dalton	
Richard Hugh Wood	Atlanta	J. T. McCall	Rome	
R. H. Oppenheimer	Atlanta	D. M. Bradley	Waycross	
Thomas Ross	Macon	M. E. Winchester	Brunswick	
Hollis Hand	LaGrange	Hartwell Joiner	Gainesville	
Richard Torpin	Augusta	Charles R. Andrews, Jr.	Canton	
Cleveland Thompson	Millen	W. H. Roberts	Augusta	
Patrick M. Howard	College Park	S. M. Talmadge	Athens	
Robert Martin, III	Cuthbert	W. J. Murphy	Atlanta	
W. F. Reavis	Waycross	Thomas Harrold	Macon	
Vernon E. Powell	Atlanta	Major F. Fowler	Atlanta	
John Sharpley	Savannah			
McClaren Johnson	Atlanta	<i>Tuberculosis</i>		
<i>Liaison Committee</i>				
<i>Georgia State Medical Association (Negro)</i>				
J. R. McCord, Chairman	Atlanta	C. C. Aven, Chairman	Atlanta	
W. E. Storey	Columbus	C. D. Whelchel	Gainesville	
Lee H. Battle, Jr.	Rome	R. C. McGahee	Augusta	
J. F. Hanson	Macon	R. V. Martin	Savannah	
H. H. Allen	Decatur	Eustace Allen	Atlanta	
<i>Pediatrics</i>				
W. W. Anderson, Chairman	Atlanta	Warren Gilbert	Rome	
Philip Mulherin	Augusta	R. C. Major	Augusta	
Frank Schley	Columbus	H. C. Schenck	Atlanta	
Hall Farmer	Macon	W. C. Cook	Columbus	
M. M. McCord	Rome	E. F. Wahl	Thomasville	
Howard J. Morrison	Savannah	H. C. Atkinson	Macon	
R. W. Fowler	Marietta	Horace E. Crow	Rome	
A. M. Johnson	Valdosta	A. Worth Hobby	Atlanta	
<i>Appendicitis</i>				
J. C. Patterson, Chairman	Cuthbert	J. L. Elliott	Savannah	
J. K. Quattlebaum	Savannah	Rufus F. Payne	Rome	
C. K. Wall	Thomasville	Mark S. Dougherty	Atlanta	
F. F. Rudder	Atlanta	Bon M. Durham	Americus	
Ben H. Clifton	Atlanta	Walter Martin	Shellman	
B. L. Harbin	Rome	Malcolm P. Mullen	Atlanta	
W. P. Nicolson, Jr.	Atlanta			
Kenneth McCullough	Waycross	<i>Advisory Woman's Auxiliary</i>		
R. L. Rogers	Gainesville	Chas. H. Richardson, Chairman	Macon	
Julius Picotti	Atlanta	James N. Brawner	Atlanta	
Stewart D. Brown	Royston	Sam Anderson	Milledgeville	
W. M. Feild	Albany	Shelley C. Davis	Atlanta	
John W. Turner	Atlanta	R. C. McGahee	Augusta	
<i>Awards</i>				
William R. Dancy, Chairman	Savannah	W. Bruce Schaefer	Toccoa	
T. Schley Gatewood	Americus	Olin S. Cofer	Atlanta	
M. M. McCord	Rome	Enoch Callaway	LaGrange	
T. C. Williams	Valdosta			
Henry M. Moore	Thomasville	<i>Revision of Pharmacopeia of U. S.</i>		
		C. C. Aven, Chairman (1949)	Atlanta	
		Allen H. Bunce (1949)	Atlanta	
		Hal M. Davison (1949)	Atlanta	
<i>Maternal Mortality and Infant Deaths</i>				
H. F. Sharpley, Jr., Chairman	Savannah	H. F. Sharpley, Jr., Chairman	Savannah	
C. B. Upshaw	Atlanta	Richard Torpin	Augusta	
Wm. C. Cook	Columbus	Wm. C. Cook	Atlanta	
G. G. Lunsford	Atlanta	John B. Cross	Atlanta	
John B. Cross	Atlanta	David M. Wolfe	Albany	
David M. Wolfe	Albany	O. R. Thompson	Macon	
O. R. Thompson	Macon	W. C. Goodpasture	Atlanta	
W. C. Goodpasture	Atlanta	Sam Y. Brown	Atlanta	

J. B. Kay	Byron	R. C. Montgomery	Butler	
Tom Dover	Athens	J. H. Baxter	Ashburn	
Amey Chappell	Atlanta	John L. Gallemore	Perry	
<i>Medical Education</i>				
W. E. Person, Chairman	Atlanta	Kenneth S. Hunt, Chairman	Griffin	
J. C. Patterson	Cuthbert	J. W. Chambers	LaGrange	
H. D. Allen, Jr.	Milledgeville	R. L. Hammond	Jackson	
C. K. Wall	Thomasville	S. F. Scales	Carrollton	
C. B. Lord	Jefferson	T. J. Busey	Fayetteville	
<i>Neuropsychiatry</i>				
W. A. Smith, Chairman	Atlanta	M. F. Cochran	Newnan	
Albert F. Brawner	Smyrna	A. W. Carter, Jr.	McDonough	
Richard B. Wilson	Atlanta	S. B. Traylor	Barnesville	
Hervey M. Cleckley	Augusta	R. B. Gilbert	Greenville	
Newdigate M. Owensby	Atlanta	S. L. Waites	Covington	
PREPAYMENT MEDICAL CARE PLANS				
At a meeting of the Council, Sept. 22, 1949, with full discussion of prepayment medical care plans, it was decided that a smaller committee could best handle this problem. Accordingly, each District Medical Society was requested to nominate a member to serve on a permanent board for the purpose of facilitating such plans in Georgia. Seven district societies have reported their nominees, and the President of the Association designated the chairman of the new board. The names follow:				
W. S. Dorough, Chairman	Atlanta	Marion C. Pruitt, Chairman	Atlanta	
John L. Elliott	Savannah	Spencer A. Kirkland	Atlanta	
Steve P. Kenyon	Dawson	Major Fowler	Atlanta	
Kenneth D. Grace	LaGrange	L. P. Matthews	Atlanta	
A. M. Phillips	Macon	H. E. Griggs	Conyers	
P. O. Chaudron	Cedartown	<i>Sixth District</i>		
W. L. Pomeroy	Waycross	H. D. Allen, Jr., Chairman	Milledgeville	
<i>State Committee</i>		H. G. Weaver	Macon	
B. H. Minchew, General Chairman	Waycross	Charles B. Fulghum	Milledgeville	
J. L. Elliott, Co-Chairman	Savannah	C. H. Richardson	Macon	
W. S. Dorough	Atlanta	J. A. Camp	Roberta	
Sam Anderson	Milledgeville	C. S. Jernigan	Sparta	
W. G. Elliott	Cuthbert	F. S. Belcher	Monticello	
<i>First District</i>		John R. Lewis	Louisville	
Lee Howard, Chairman	Savannah	Joseph D. Zachary	Gray	
Charles T. Brown	Guyton	John A. Bell	Dublin	
A. B. Daniel	Statesboro	George H. Alexander	Forsyth	
J. L. Elliott	Savannah	O. D. Lennard	Sandersville	
R. G. Brown	Swainsboro	S. N. Rubin	Gordon	
Katrine Rawls	Sylvania	<i>Seventh District</i>		
J. W. Palmer	Ailey	W. H. Perkins, Chairman	Marietta	
L. R. Jelks	Reidsville	D. Lloyd Wood	Dalton	
W. W. Aiken	Lyons	A. L. Horton	Cartersville	
O. D. Middleton	Ludowici	W. B. Hair	Summerville	
<i>Second District</i>		L. L. Welch	Marietta	
C. K. Wall, Chairman	Thomasville	C. V. Vansant	Douglasville	
C. H. Watt	Thomasville	Lee H. Battle, Jr.	Rome	
Harry A. Wasden	Quitman	J. E. Billings	Calhoun	
A. G. Funderburk	Moultrie	C. H. Allen	Bremen	
M. A. Ehrlich	Bainbridge	Cecil B. Elliott	Cedartown	
I. M. Lucas	Albany	Frank L. O'Connor	Rossville	
J. V. Rogers	Cairo	H. J. Ault	Dalton	
D. P. Belcher	Pelham	<i>Eighth District</i>		
C. S. Pittman	Tifton	W. F. Reavis, Chairman	Waycross	
J. G. Standifer	Blakely	Alton M. Johnson	Valdosta	
G. S. Sumner	Sylvester	J. T. Holt	Baxley	
<i>Third District</i>		T. H. Clark	Douglas	
W. G. Elliott, Chairman	Cuthbert	F. L. Mann	McRae	
Guy J. Dillard	Columbus	W. L. Pomeroy	Waycross	
D. B. Ware	Fitzgerald	J. Alvin Leaphart	Jesup	
Charles Adams	Cordele	<i>Ninth District</i>		
M. L. Malloy	Vienna	C. B. Lord, Chairman	Jefferson	
C. P. Savage	Montezuma	D. H. Garrison	Clarkesville	
John Bush	Columbus	W. T. Randolph	Winder	
Albert R. Bush	Hawkinsville	J. S. Jolley	Homer	
J. C. Patterson	Cuthbert	C. D. Whelchel	Gainesville	
T. Schley Gatewood	Americus	Bruce Schaefer	Toccoa	
<i>Tenth District</i>		A. A. Rogers	Commerce	
Harry L. Cheves, Chairman		Marcus Mashburn, Sr.	Cumming	
J. Victor Roule		Robert T. Jones, III	Canton	
John Simpson		J. C. Dover	Clayton	
		W. E. Burdine	Blue Ridge	
		L. G. Neal	Cleveland	

A. S. Johnson	Elberton
Stewart D. Brown	Royston
W. H. Lewis	Siloam
A. O. Meredith	Hartwell
B. F. Riley, Jr.	Thomson
J. H. Nicholson	Madison
L. M. Huie	Monroe
A. W. Davis	Warrenton
T. C. Nash	Philomath
W. J. Cranston	Augusta

Fraternal Delegates to Other States

Alabama—J. A. Wood, Macon; Walter D. Martin, Shellman; Reese Coleman, Atlanta.

Florida—J. E. Penland, Waycross; C. E. Rushin, Atlanta; J. W. Simmons, Brunswick.

North Carolina—W. A. Johnson, Elberton; F. Lee Bivings, Atlanta; C. G. Butler, Gainesville.

South Carolina—G. Lombard Kelly, Augusta; D. N. Thompson, Elberton; Jesse L. Meeks, Gainesville.

Tennessee—Murl Hagoood, Marietta; E. L. Ward, Gainesville; Trammell Starr, Dalton.

STATE BOARD OF HEALTH*

First District: James M. Byne, Jr., Waynesboro, Sept. 1, 1951.

Second District: C. K. Sharp, Arlington, Sept. 1, 1951.

Third District: R. C. Montgomery, Butler, Sept. 1, 1954.

Fourth District: J. A. Corry, Barnesville, Sept. 1, 1949.

Fifth District: Spencer A. Kirkland, Atlanta, Sept. 1, 1954.

Sixth District: C. L. Ridley, Macon, Sept. 1, 1950.

Seventh District: W. P. Harbin, Jr., Rome, Sept. 1, 1950.

Eighth District: B. H. Minchew, Waycross, Sept. 1, 1950.

Ninth District: Robert L. Rogers, Gainesville, Sept. 1, 1951.

Tenth District: D. N. Thompson, Elberton, Sept. 1, 1949.

STATE OF GEORGIA AT LARGE**

Georgia Dental Association

W. K. White, Savannah, Sept. 1, 1951.

J. G. Williams, Atlanta, Sept. 1, 1951.

Georgia Pharmaceutical Association

George Wright, Tifton, Sept. 1, 1953.

J. B. Butts, Milledgeville, Sept. 1, 1953.

*Nominated by their respective district medical societies and appointed for six year terms.

**Nominated by their respective associations.

STATE BOARD OF MEDICAL EXAMINERS

J. W. Palmer	Ailey
Steve P. Kenyon	Dawson
Grady N. Coker	Canton
Edgar H. Greene	Atlanta
R. H. McDonald	Newnan
Phil E. Roberson	Albany
Fred J. Coleman	Dublin
Alexander B. Russell	Winder
Rufus A. Askew	Atlanta
R. F. Wheat	Bainbridge

DISTRICT SOCIETIES

OFFICERS AND MEETING DATES

First District

President—W. O. Bedingfield, Savannah

Secretary—Wm. H. Fulmer, Savannah

Third Wednesday—March and July.

Second District

President—Ernest Wahl, Thomasville

Secretary—J. C. Brim, Pelham

Second Thursday—April and October.

Third District

President—Lee E. Williams, Cordele.

Secretary—Robert C. Pendergrass, Americus

Third Wednesday in June—Second Wednesday in November.

Fourth District

President—Kenneth D. Grace, LaGrange

Secretary—James A. Johnson, Jr., Manchester

Second Wednesday—February and August.

Fifth District

President—Shelley C. Davis, Atlanta

Secretary—L. M. Blackford, Atlanta.

No set dates.

Sixth District

President—Frank Vinson, Fort Valley

Secretary—A. M. Phillips, Macon

Last Wednesday in June—First Wednesday in December

Seventh District

President—Inman Smith, Rome

Secretary—Lee H. Battle, Jr., Rome

First Wednesday in April—last Wednesday in September

Eighth District

President—H. A. Scaman, Waycross

Secretary—G. T. Crozier, Valdosta

Second Tuesday—April and October.

Ninth District

President—Wm. H. Good, Jr., Toccoa

Secretary—Hartwell Joiner, Gainesville

Dates not specified.

Tenth District

President—Philip R. Stewart, Monroe

Secretary—M. C. Adair, Washington.

Second Wednesday—February and August.

DELEGATES TO THE 1949 SESSION

Counties Names and Addresses

Appling	
Baldwin	Charles B. Fulghum, Milledgeville
Banks	J. S. Jolley, Homer
Bartow	
Ben Hill	J. D. Applewhite, Macon
Bibb	J. B. Kay, Byron
Blue Ridge	W. E. Burdine, Blue Ridge
Brooks	
Bulloch-Candler-Evans	J. H. Whiteside, Statesboro
Burke	J. M. Byne, Jr., Waynesboro
Carroll-Douglas-Haralson	Wm. P. Downey, Tallapoosa
Chatham—	
Georgia Medical Society	John L. Elliott, Savannah
Chattooga	Howell P. Holbrook, Summerville
Cherokee-Pickens	C. J. Roper, Jasper
Clarke	M. A. Hubert, Athens
Clayton-Fayette	Y. R. Coleman, Fayetteville
Cobb	Walter G. Crawley, Marietta
Coffee	Horace G. Joiner, Douglas
Colquitt	Edgar C. Holmes, Moultrie
Columbia	
Coweta	J. H. Arnold, Newnan
Crisp	P. L. Williams, Cordele
Decatur-Seminole	
DeKalb	John T. Leslie, Decatur
Dooly	
Dougherty	Paul T. Russell, Albany
Elbert	D. N. Thompson, Elberton
Emanuel	C. E. Powell, Swainsboro
Floyd	J. T. McCall, Jr., Rome
Forsyth	
Franklin	
Fulton	
Glynn	Hal M. Davison, Atlanta
Gordon	Stephen T. Brown, Atlanta
Grady	A. O. Linch, Atlanta
Walter W. Daniel, Atlanta	
F. Kells Boland, Jr., Atlanta	
A. Worth Hobby, Atlanta	
Jack C. Norris, Atlanta	
Eustace A. Allen, Atlanta	
William G. Hamm, Atlanta	
Major F. Fowler, Atlanta	
Shelley C. Davis, Atlanta	
J. G. McDaniel, Atlanta	
J. D. Martin, Jr., Atlanta	
J. B. Avera, Brunswick	
W. D. Hall, Calhoun	
Joe J. Arrendale, Cornelia	

Hall	L. G. Neal, Jr., Cleveland
Hancock	C. S. Jernigan, Sparta
Hart	
Henry	
Houston-Peach	
Jackson-Barrow	Alexander B. Russell, Winder
Jasper	F. S. Belcher, Monticello
Jefferson	John R. Lewis, Louisville
Jenkins	Cleveland Thompson, Millen
Lamar	J. A. Corry, Barnesville
Laurens	Fred J. Coleman, Dublin
Macon	
McDuffie	
Meriwether-Harris	
Mitchell	M. W. Williams, Camilla
Monroe	
Montgomery	J. W. Palmer, Ailey
Morgan	J. H. Nicholson, Madison
Muscogee	D. R. Venable, Columbus
	G. M. Hutto, Columbus
Newton	J. R. Sams, Covington
Ocmulgee—	
Bleckley-Dodge-Pulaski	Richard L. Smith, Cochran
Polk	Cecil B. Elliott, Cedartown
Rabun	
Randolph-Terrell	J. C. Tidmore, Dawson
Richmond	George W. Wright, Augusta
	W. J. Williams, Augusta
Rockdale	David R. Thomas, Jr., Augusta
Screven	Harvey E. Griggs, Conyers
South Georgia: Berrien-Clinch-Cook-Echols-	
Lanier-Lowndes	A. G. Little, Jr., Valdosta
Spalding	Wm. E. Barfield, Jackson
Stephens	W. Bruce Schaefer, Toccoa
Sumter	J. C. Logan, Plains
Tattnall	A. G. Pinkston, Glennville
Taylor	
Telfair	F. R. Mann, Jr., McRae
Thomas	John B. Morton, Thomasville
Tift	Richard K. Winston, Tifton
Toombs	
Tri-County: Calhoun-Early-Miller	
Tri-County: Liberty-Long-McIntosh	
Troup	Kenneth Grace, LaGrange
Turner	
Upson	Herbert D. Tyler, Thomaston
Walker-Catoosa-Dade	S. B. Kitchens, LaFayette
Walton	Lynn M. Huie, Monroe
Ware	W. L. Pomeroy, Waycross
Warren	H. T. Kennedy, Warrenton
Washington	Emory G. Newsome, Sandersville
Wayne	Robert A. Pumpelly, Jesup
Whitfield	Fred B. Ragland, Dalton
Wilcox	J. M. Estes, Abbeville
Wilkes	T. W. Middlebrooks, Crawfordville
Worth	

ANNOUNCEMENTS

Be sure to go to the Registration Desk at the Hotel DeSoto after your arrival, present your 1949 membership card, register and procure a badge and program.

Discussion of papers is open to all members and guests of the Association; it is not limited to those named on the program.

On arising to discuss a paper the speaker will please announce his name and address clearly for the benefit of the Association and the reporter.

Meetings will be called to order at the hour fixed on the program. It is especially desired that the members be prompt in their attendance.

All manuscripts should be typewritten, double spaced, and on one side of the paper only. Papers must be handed to the reporter immediately after being read.

IMPORTANT NOTICE

Delegates must present written credentials to the Committee on Credentials of the House of Delegates to secure delegates' badges.

Members may not take part in the proceedings until they have registered and procured official badges.

PUBLIC MEETINGS
Hotel DeSoto

WEDNESDAY, MAY 11, 8:30 A. M.
Opening Meeting

WEDNESDAY, MAY 11, 8:00 P. M.
Eastern Standard Time

Presentation of the President's Gold Key to President Edgar Hill Greene, Atlanta, by John B. Fitts, Atlanta.

THURSDAY, MAY 12, 12:00 NOON

President's Address

Our Problems at the Beginning of the Association's Second Hundred Years

Edgar Hill Greene, Atlanta

The President's Address will be at an open session to which the public and visitors are invited.

MEMORIAL EXERCISES

M. Preston Agee, Augusta
Chairman, Committee on Necrology

ENTERTAINMENT

At the time of going to press, plans for the various entertainments have not been completed. All such plans will be listed in the final pocket edition of the program.

MEETINGS OF THE HOUSE OF DELEGATES

Hotel DeSoto

TUESDAY, MAY 10, 2:00 P. M.
Eastern Standard Time

First meeting of the House of Delegates

1. Call to order by the President
2. Roll Call
3. Appointment of Reference Committees
4. Reports of officers:
 - President
 - President-Elect
 - Vice-Presidents
 - Parliamentarian
 - Secretary-Treasurer: Financial report
 - Reports of Delegates to the A.M.A.
5. Reports of committees:
 - Scientific Work
 - Public Policy and Legislation
 - Arrangements
 - Medical Defense
 - Hospitals
 - Necrology
 - Cancer Commission
 - History
 - Abner Wellborn Calhoun Lectureship
 - Awards
 - Advisory—Woman's Auxiliary
 - Medical Economics
 - Orthopedics — Advisory, State Department of Public Welfare.
 - Ophthalmology—Advisory, State Department of Public Welfare
 - Syphilis
 - Tuberculosis
 - Special Committees
6. Unfinished business,
7. New business.

TUESDAY, MAY 10, 8:00 P. M.
Eastern Standard Time

Hotel DeSoto

Second meeting of the House of Delegates

1. Call to order by the President
2. Reading of minutes
3. Announcements
4. Report of President of Woman's Auxiliary
5. Reports of committees (continued)
6. Reports of Fraternal Delegates

7. Unfinished business
8. New business

FRIDAY, MAY 13, 8:30 A. M.
Eastern Standard Time
 Hotel DeSoto

- Third meeting of the House of Delegates
1. Call to order by the President
 2. Reading of minutes
 3. Reports of committees
 4. Unfinished business
 5. New business.

OFFICIAL REPORTER
 The Master Reporting Company, Inc.

MEETINGS OF THE COUNCIL
 TUESDAY, MAY 10, 4:30 P. M.
Eastern Standard Time

Hotel DeSoto

The first meeting of the Council will be held Tuesday, May 10, following the afternoon session of the House of Delegates. Each Councilor will render a report of conditions of each county of his district. Other meetings of the Council will be held on the call of the chairman.

SCIENTIFIC PROGRAM
 WEDNESDAY, MAY 11, 8:30 A. M.
Eastern Standard Time

Hotel DeSoto

The papers for each meeting *must* be read as scheduled on the program.

Call to order by the President, Edgar Hill Greene, Atlanta.

Invocation

DR. L. G. CLEVERDON, Savannah
 Pastor, First Baptist Church

Addresses of Welcome
 HON. OLIN F. FULMER, Mayor, City of Savannah
 JOHN L. ELLIOTT, Savannah
 President, Georgia Medical Society

Response to Addresses of Welcome
 A. M. PHILLIPS, Macon

Nominations for Officers and Delegate to A.M.A.

SCIENTIFIC PROGRAM
 WEDNESDAY, MAY 11, 8:30 A. M.
Eastern Standard Time

Hotel DeSoto

The time allotted to each paper, which INCLUDES the showing of slides or moving pictures, is 12 minutes.

1. Diagnostic and Therapeutic Errors—A Study of the Causes of Error in 500 Clinical and Necropsy Records.

Walter M. Bartlett, Atlanta.

2. Myxedema Diagnosed Incorrectly as Nutritional Anemia.

Arthur M. Knight, Jr., Waycross.

3. Clinical Manifestations of Infectious Mononucleosis.

Max M. Blumberg, Atlanta.

4. Present Status of Chemotherapy of Leukemia.

Tully T. Blalock, Atlanta.

To open the discussion of papers 1, 2, 3 and 4:

V. P. Sydenstricker, Augusta.

Charles M. Huguley, Jr., Atlanta.

Recess of 15 minutes to visit exhibits.

5. The Normal Electrocardiogram and Anginal Syndrome.

C. Purcell Roberts, Atlanta.

6. The Proper Selection of a Digitalizing Drug.

Louis K. Levy, Atlanta.

7. The Petechiometer: A Simple Method for Measuring Capillary Fragility.

James I. Weinberg, Atlanta.

8. The Use of the Rice Diet in Hypertension—Preliminary Report of 25 Cases.

R. E. Felder, LaGrange.

To open the discussion of papers 5, 6, 7, and 8:

Harry T. Harper, Jr., Augusta.

Ernest Wahl, Thomasville.

WEDNESDAY, MAY 11, 12:00 NOON
Eastern Standard Time

Hotel DeSoto

ABNER WELLBORN CALHOUN LECTURE
The Clinical Significance of Closure of the Retinal Blood Vessels

W. L. BENEDICT

Section on Ophthalmology, Mayo Clinic,
 Rochester, Minn.

Introduction by James E. Paullin, Atlanta.

WEDNESDAY, MAY 11, 2:30 P. M.
Eastern Standard Time

Hotel DeSoto

The time allotted to each paper, which INCLUDES the showing of slides or moving pictures, is 12 minutes.

1. Epileptic Variants Often Mistaken for the Psycho-neuroses: Differential Diagnosis and Treatment.

Robert W. Graves, Rome.

2. The Emotional Aspects of Physical Disease.

Rives Chalmers, Atlanta.

To open the discussion of papers 1 and 2:

Wm. A. Smith, Atlanta.

Corbett H. Thigpen, Augusta.

3. Urologic Problems.

a. Dihydrostreptomycin—Its Use in Urologic Problems in General Practice.

James H. Semans, Atlanta.

b. Neoplastic Disease of the Ureter.

W. L. Champion, Atlanta.

Major F. Fowler, Atlanta.

Reese C. Coleman, Jr., Atlanta.

Thomas J. Florence, Atlanta.

c. Surgical Management of Exstrophy of the Bladder.

M. K. Bailey, Atlanta.

Chester A. Fort, Atlanta.

d. Conservatism in Prostatic Surgery.

Rudolph Bell, Thomasville.

Roy Stinson, Thomasville.

e. The Present Day Management of Prostatic Obstruction.

Charles L. Prince, Savannah.

f. Retropubic Prostatectomy.

Wm. H. Bennett, Atlanta.

J. D. Moffett, Atlanta.

To open the discussion:

J. L. Campbell, Jr., Valdosta.

Zeb McDaniel, Albany.

WEDNESDAY, MAY 11, 8:00 P. M.
Eastern Standard Time

Hotel DeSoto

Presentation of the President's Gold Key to the President, Edgar Hill Greene, Atlanta, by John B. Fitts, Atlanta.

Diseases of the Cervix.

Conrad G. Collins, New Orleans, La.

Professor and Chairman of the Department of Gynecology; Associate Professor of Obstetrics, Tulane University of Louisiana; Section of Obstetrics and Gynecology, Ochsner Clinic.

Introduction by John W. Turner, Atlanta.

What the Medical Profession is Doing About Your Eyes.

Ralph S. McLaughlin, Charleston, W. Va.

Introduction by Braswell E. Collins, Waycross.

The Detection of Early Cancer by Means of Periodic Examination.

Catherine Macfarlane, Philadelphia, Pa., Professor of Gynecology, Woman's Medical College of Pennsylvania; President, Board of Directors, American Cancer Society, Philadelphia Division. Introduction by Enoch Callaway, LaGrange.

THURSDAY, MAY 12, 8:30 A. M.
Eastern Standard Time
Hotel DeSoto

The time allotted to each paper, which INCLUDES the showing of slides or moving pictures, is 12 minutes.

1. Two Years' Experience in the Diagnosis of Uterine Cancer by Means of Vaginal Smears.
H. C. Frech, Savannah.
2. Tumors of the Salivary Glands.
J. Elliott Scarborough, Atlanta.
Robert L. Brown, Atlanta.
C. S. Jones, Atlanta.
3. The Borderline Diagnosis of Carcinoma of the Breast.
Hoke Wammock, Augusta.
To open the discussion of papers 1, 2, and 3:
Jack C. Norri, Atlanta.
J. K. Quattlebaum, Savannah.
Recess of 15 minutes to visit exhibits.
4. Bleeding Duodenal Polyp: Report of Case.
McClaren Johnson, Atlanta.
W. S. Dorough, Atlanta.
5. Congenital Intrinsic Duodenal Obstruction: Report of Eight Cases.
Lon Grove, Atlanta.
Earl Rasmussen, Atlanta.
6. Transverse Abdominal Incisions.
Harry Rogers, Atlanta.
Wm. G. Whitaker, Atlanta.
7. Goiter: Hashimoto Type.
T. C. Davison, Atlanta.
A. H. Letton, Atlanta.
8. Treatment of Burns.
J. D. Martin, Jr., Atlanta.
Richard S. Candle, Atlanta.
J. M. B. Bloodworth, Jr., Atlanta.
To open the discussion of papers 4, 5, 6, 7, and 8:
Lester Harbin, Rome.
G. Frank Jones, Jr., Augusta.
9. Total Laryngectomy. Motion Pictures.
Murdock Equen, Atlanta.
Robert Brown, Atlanta.
George Roach, Atlanta.

THURSDAY, MAY 12, 12:00 NOON
Eastern Standard Time
Hotel DeSoto

President's Address

Our Problems at the Beginning of the Association's Second Hundred Years

EDGAR HILL GREENE, Atlanta

MEMORIAL EXERCISES

M. Preston Agee, Augusta
Chairman, Committee on Necrology.

THURSDAY, MAY 12, 2:30 P. M.
Eastern Standard Time
Hotel DeSoto

The time allotted to each paper, which INCLUDES the showing of slides or moving pictures, is 12 minutes.

1. Fractures of the Lower Extremity.
Thomas P. Goodwyn, Atlanta.
2. A Technic for Vaginal Hysterectomy Using Only Four Ligatures, and With the Aid of a Special Cystic Duct Forcep.
Cleveland Thompson, Millen.
To open the discussion of papers 1 and 2:
J. H. Mull, Rome.
J. F. Denton, Atlanta.

3. Breech Presentation: Is Fetal Extension an Etiologic Factor?
Richard Torpin, Augusta.
Guy L. Calk, Augusta.
4. Bicornate Uterus—Obstetric Complications.
T. Schley Gatewood, Americus.
5. Diabetes Mellitus in Pregnancy.
John R. McCain, Atlanta.
William Marvin Lester, Atlanta.
To open the discussion of papers 3, 4 and 5:
Edmund Brannen, Macon.
George Holloway, Atlanta.
6. Anesthesiology.
 - a. New Wine and Old Bottles.
Ralph M. Waters, Orlando, Fla.
 - b. Newer Analgesics.
John M. Brown, Augusta.
 - c. Indications for Sympathetic Block.
Perry P. Volpitto, Augusta.

FRIDAY, MAY 13, 9:00 A. M.
Eastern Standard Time
Hotel DeSoto

The time allotted to each paper, which INCLUDES the showing of slides or moving pictures, is 12 minutes.

1. Gastro-Intestinal Allergy in Children.
Harold W. Muecke, Waycross.
2. Newcastle's Disease: Report of Case.
Edwin R. Watson, Macon.
Marvin Harris, Macon.
3. Masked Hypothyroidism as a Basis for Symptoms.
W. Edward Storey, Columbus.
4. Carotid Sinus Syndrome.
C. Raymond Arp, Atlanta.
To open the discussion of papers 1, 2, 3 and 4:
Ruskin King, Savannah.
H. C. Atkinson, Macon.
5. Surgical Treatment of Pilonidal Cyst—A Simple Ambulatory Method.
Needham B. Bateman, Atlanta.
6. Neck Dissections.
Milford B. Hatcher, Macon.
7. Diagnostic and Therapeutic Block for the Treatment of Pain.
C. MacKenzie Brown, Albany.
8. Roentgen Therapy for Bursitis of the Shoulder.
David Robinson, Savannah.
9. Pulmonary Sarcoidosis.
Robert M. Tankersley, Atlanta.
To open the discussion of papers 5, 6, 7, 8 and 9:
A. M. Phillips, Macon.
Robert Drane, Savannah.

ANNOUNCEMENT OF ELECTION OF OFFICERS
AND DELEGATE TO A. M. A.

President-Elect

First Vice-President

Second Vice-President

Delegate to the A. M. A.

Parliamentarian

Councilors:

First District

Second District

Third District

Fourth District

Fifth District

Sixth District

Seventh District

Eighth District

Ninth District

Tenth District

Selection of meeting place for 1950.

CONSTITUTION AND BY-LAWS

Chapter II, Section 2. No papers or addresses before the Association, except those of the President and invited essayists, shall occupy more than fifteen minutes

in their delivery; and no member shall speak longer than five minutes, nor more than once on any subject, provided that each essayist shall have five minutes in which to close the discussion of his paper.

Chapter VIII, Section 1. The deliberations of this Association shall be governed by parliamentary usage as contained in Robert's Rules of Order, when not in conflict with this Constitution and By-Laws.

Chapter VIII, Section 2. All papers read before the Association shall become its property. Each paper shall be deposited with the Secretary when read, and if this is not done it shall not be published.

No miscellaneous or business matters will be discussed before the scientific meetings, but will be referred to the House of Delegates.

Resolution Adopted 1921

Resolved: That a member who sends in a title of a paper to be placed on the program and is not present to read the paper shall pay the penalty of not having an opportunity to appear on the program for two years, unless he presents an excuse acceptable to the Committee on Scientific Work.

We are instructed by the President to announce to all essayists that the sessions of the Scientific Program of the Association will begin on time, and that the above regulations of the By-Laws in reference to the program will be strictly enforced.

COMMITTEE ON SCIENTIFIC WORK

B. E. Collins, Chairman	Waycross
Carter Smith	Atlanta
W. C. McGahey	Madison
Edgar D. Shanks	Atlanta

IN MEMORIAM

Alderman, Hiram Alonzo, Portal, August 14, 1948, aged 71.
Alsobrook, James Samuel, Rossville, August 4, 1948, aged 77.
Amis, Franklin Joseph, Jr., Hogansville, June 27, 1948, aged 60.
Baskin, Alcimus H., Atlanta, November 17, 1948, aged 79.
Blitch, James Reuben, Savannah, February 14, 1949, aged 80.
Bostick, William Abraham, Milledgeville, February 3, 1949, aged 69.
Bowman, Robert E., Dawson, June 14, 1948, aged 66.
Calloun, William Wright, Arlington, May 12, 1948, aged 73.
Camp, William R., Fairburn, August 25, 1948, aged 80.
Campbell, James LeRoy, Atlanta, June 11, 1948, aged 77.
Carswell, Henry Jones, Waycross, October 3, 1948, aged 63.
Castellaw, George Otis, Commerce, January 23, 1949, aged 64.
Cheney, Gamaliel Wyatt Holmes, Rome, October 26, 1948, aged 63.
Clay, Thomas Savage, Savannah, January 17, 1949, aged 81.
Cole, Thomas Mathew, Albany, February 28, 1949, aged 48.
Decker, Corben Jay, Athens, June 21, 1948, aged 87.
Gary, Loren, Georgetown, March 17, 1949, aged 68.
Gower, James Charles, Gainesville, September 2, 1948, aged 72.
Hammond, Dewey Wardlaw, LaFayette, May 6, 1948, aged 51.
Hancock, Charles Russell, Atlanta, November 11, 1948, aged 69.
Harden, James Elzie, Whigham, December 2, 1948, aged 66.
Harris, Ernest C. Sylvester, April 26, 1948, aged 64.

- Harrison, Miller Thurman, Atlanta, June 1, 1948, aged 51.
 Harrold, Charles Cotton, Macon, October 11, 1948, aged 70.
 Hendricks, William H., Tifton, November 15, 1948, aged 75.
 Hennies, John Henry, Brunswick, December 4, 1948, aged 68.
 Hogg, A. Roy, Lexington, November 23, 1948, aged 67.
 Jarrell, William Williamson, Thomasville, June 21, 1948, aged 72.
 Kelly, John Henry, Atlanta, November 20, 1948, aged 85.
 Lewis, John Henry, Dawson, June 25, 1948, aged 86.
 Lewis, William Hill, Siloam, June 29, 1948, aged 66.
 Lunsford, John Fletcher, Preston, October 19, 1948, aged 70.
 McAfee, Linton Cobb, Macon, August 8, 1948, aged 67.
 McCrary, John Oliver, Royston, December 5, 1948, aged 76.
 Nix, William Jones, Rockmart, March 17, 1949, aged 72.
 Penington, Claude Lee, Macon, February 21, 1949, aged 58.
 Pitts, Julius Thomas, Newborn, September 21, 1948, aged 76.
 Quartermar, Peter Clark, Valdosta, January 8, 1949, aged 65.
 Ross, Stephen Theo, Winder, December 28, 1948, aged 81.
 Seymour, Wilmarth Young, Augusta, August 12, 1948, aged 69.
 Smith, Wilson Jackson, Forsyth, January 23, 1949, aged 70.
 Touchton, George Linton, Savannah, February 4, 1949, aged 65.
 Travis, William Darracott, Covington, December 6, 1948, aged 78.
 Twitty, Clarence Walthall, Newton, July 20, 1948, aged 69.
 Vickers, Thomas Eldridge, Harrison, June 6, 1948, aged 84.
 Wallis, Howard Gilbert, Columbus, January 5, 1949, aged 66.
 Watkins, William B., Waycross, May 20, 1948, aged 81.
 Watson, Otho Odell, Macon, March 10, 1948, aged 47.
 Welch, Leonard Lee, Marietta, October 19, 1948, aged 53.
 Weaver, Olin Heard, Macon, March 2, 1949, aged 76.
 Wilson, Walter Scott, Savannah, May 27, 1948, aged 90.
 Witmer, Chester Anderson, Waycross, May 7, 1948, aged 61.

SCIENTIFIC EXHIBITS

Hotel DeSoto

1. *Vocational Rehabilitation Division*—State Department of Education, Atlanta.
2. *Voice Demonstration by Laryngectomized Patients*—Murdock Equeen, George Roach, and Robert Brown, Ponce de Leon Infirmary, Atlanta.
3. *Perineal Prostatic Surgery*—James H. Semans, Atlanta.
4. *Radiography of the Gastrointestinal Tract*—R. L. Kennedy, and Earl H. Johnson, Kennedy Clinic, Metter.
5. *The Incidence of Cancer in Glandular and Non-Glandular Cases*—J. K. Fancher, The Good Samaritan Clinic, Atlanta.
6. *Hiatal Hernia Simulating Coronary Disease. An Analysis of 50 Cases of Hiatal Hernia*—Carter Smith, Charles F. Stone, Jr., F. Levering Neely, and Ed Russell, Atlanta.
7. *Non-Specific Pericarditis*—Carter Smith, Charles F. Stone, Jr., F. Levering Neely, and Eugene Hanes, Atlanta.
8. *Breast Cancer*—Sheffield Cancer Clinic, Georgia Baptist Hospital, Atlanta.
9. *Skin Cancer Treatment One Hundred Years Ago and Today*—Philip H. Nippert, Atlanta.

10. *Neoplastic Diseases*—M. Fernan-Nunez, Milledgeville State Hospital, Milledgeville.
11. *Demonstration-Peritoneoscopy. Demonstration of a Safe Technic of Peritoneoscopy and of a New Instrument Designed for Taking Safe Peritoneoscopic Biopsies*—Charles P. Marvin, and Maxwell Berry. From the Gastrointestinal Service, Grady Hospital and Berry Clinic, Atlanta.
12. *Treatment of Long Bone Fractures With the Kuntscher Nail*—E. C. Lowry, and Ernst Dehne, Surgical Service, Oliver General Hospital, Augusta.
13. *Acute Infectious Hepatitis and Miscellaneous Topics Pertaining to the Army Medical Department*—Joe M. Blumberg, Department of Pathology, Oliver General Hospital, Augusta, in cooperation with The Army Institute of Pathology, Washington, D. C.
14. *Woman's Auxiliary to the Medical Association of Georgia*.
15. *Occupational Disease in Differential Diagnosis*—State of Georgia Department of Public Health in cooperation with the Division of Industrial Hygiene, Washington, D. C.
16. *Combined Cancer Exhibit*—American Cancer Society, Georgia Division; Cancer Commission of the Medical Association of Georgia, and the State Board of Health, Atlanta.
17. *Life Cycle of the Malaria Parasite*—United States Public Health Service.
18. *Acromegaly*—Robert B. Greenblatt, and Jule C. Neal, Department of Endocrinology, University of Georgia School of Medicine, Augusta.
19. *Pituitary Insufficiency*—Charles L. Leedham, and James M. Orbison, Medical Service, Oliver General Hospital, Augusta.
20. *Medical Illustration—A New Course of Training*—Jack Wilson, Department of Art as Applied to Medicine, University of Georgia School of Medicine, Augusta.
21. *Technic for Vaginal Hysterectomy With Only Four Vascular Pedicles and the Use of a Special Cystic Duct Forceps*—Cleveland Thompson, Millen Hospital, Millen.
22. *The Maternity Shelter at The University of Georgia School of Medicine*—Richard Torpin, and Guy Calk, Department of Obstetrics and Gynecology, University of Georgia School of Medicine, Augusta.
23. *Unusual Skin Diseases Seen at The University of Georgia School of Medicine*—Malcolm Bazemore, Department of Dermatology and Syphilology, University of Georgia School of Medicine, Augusta.
24. *Functional Uterine Bleeding*—Robert B. Greenblatt, Department of Endocrinology, University of Georgia School of Medicine, Augusta.
25. *One to Two Hour Male Frog Test for Pregnancy*—Sarah Clark, Robert M. West, and Robert B. Greenblatt, Department of Endocrinology, University of Georgia School of Medicine, Augusta.
9. Picker X-Ray Corporation
300 Fourth Avenue
New York 10, N. Y.
11. Marks & Marks, Inc.
412-416 6th Street, Augusta, Ga.
12. The Doho Chemical Corporation
100 Varick Street, New York 13, N. Y.
13. Brayten Pharmaceutical Company
3302 St. Elmo Avenue, Chattanooga 9, Tenn.
Ben Perrymon, P. O. Box 242, Atlanta, Ga.
16. Pet Milk Sales Corporation
General Offices Arcade Bldg., St. Louis 1, Mo.
17. Ciba Pharmaceutical Products, Inc.
556 Morris Avenue, Summit, N. J.
18. Carnation Company
Oconomowoc, Wis.
19. A. H. Robins Company
12 South Twelfth Street, Richmond 19, Va.
20. Parke, Davis & Company
Detroit 32, Mich.
C. O. Church, 223 Courtland Street, N. E., Atlanta, Ga.
21. Mead Johnson & Company
Evansville 21, Ind.
J. H. Gilmore, 1672 Emory Road, N. E., Atlanta, Ga.
22. Spencer Incorporated
P. O. Box 1710, New Haven 7, Conn.
23. General Electric X-Ray Corporation
205 Spring Street, N. W., Atlanta, Ga.
24. Hoffman-La Roche, Inc.
Roche Park, Nutley 10, N. J.
25. Rare Chemicals, Inc.
First and Essex Streets, Harrison, N. J.
26. The S. & H. X-Ray Company,
501 Peachtree St., N. E., Atlanta, Ga.
27. E. R. Squibb & Sons
Squibb Building, 745 Fifth Avenue,
New York 22, N. Y.
28. Wachtel's Physician Supply Company
406-10 Bull Street, Savannah, Ga.
29. The Liebel-Flarsheim Company
303 West Third Street, Cincinnati 2, O.
30. Philip Morris & Co., Ltd., Inc.
119 Fifth Avenue, New York 3, N. Y.
31. U. S. Vitamin Corporation
250 East 43rd Street, New York 17, N. Y.
32. VanPelt and Brown, Inc.
Richmond, Va.
33. Southern Pharmaceuticals, Inc.
157 Forrest Avenue, N. E., Atlanta, Ga.
William J. Wolly, Atlanta, Ga.
34. L. & B. Reiner
139 East 23rd Street, New York 10, N. Y.
35. Winthrop-Stearns, Inc.
170 Varick Street, New York 13, N. Y.

TECHNICAL EXHIBITS

Hotel DeSoto

1. C. B. Fleet Company, Inc.
921-927 Commerce Street, Lynchburg, Va.
W. E. Avery, 127 Ponce de Leon Court,
Decatur, Ga.
2. Wm. P. Poythress & Company, Inc.
Richmond, Va.
3. M & R Dietetic Laboratories, Inc.
Columbus 16, O.
5. J. A. Majors Company
1301 Tulane Avenue, New Orleans 13, La.
6. Eli Lilly and Company
Indianapolis 6, Ind.
7. Kremers-Urban Company
Milwaukee, Wis.
8. Lederle Laboratories Division
American Cyanamid Company
30 Rockefeller Plaza, New York 20, N. Y.

SCIENTIFIC PRESENTATIONS

Scientific presentations have been omitted from this number of The *Journal* in order to present to its readers certain facts regarding the early history of the MEDICAL ASSOCIATION OF GEORGIA. Present and future medical historians must therefore refer to the contents of the journals of 1949, as a whole, to ascertain the quality of the scientific medical work of Georgia physicians of this period.—Ed.

SAVANNAH HOTELS AND THE CENTENNIAL MEETING

Despite claims to the contrary, the hotels of Savannah cannot accommodate all of our members for the Centennial Meeting of the Association. Only 487 rooms are available for use of our members and guests. Hotel DeSoto will be headquarters for the meeting. Other hotels are: General Oglethorpe, Savannah, Whitney, John Wesley, and DeSoto Beach.

THE JOURNAL

OF THE
MEDICAL ASSOCIATION OF GEORGIA

478 Peachtree Street, N. E., Atlanta, Ga.

APRIL, 1949

INVITATIONS FROM SAVANNAH

We, in Savannah, value very highly the work of our physicians and the part they have played in the organization of the Medical Association of Georgia. We are pleased that its members have chosen our city for the celebration of the Hundredth Anniversary of the State Association.

As Mayor, I deem it a privilege to invite the members of this Association to attend this centennial celebration and offer you the full hospitality of Savannah—a city where so many efforts originated and have been furthered for the benefit of mankind. In these endeavors we have been associates—we would like that association to continue always.

Olin F. Fulmer, Mayor.

* * *

The Chamber of Commerce of Savannah is delighted to learn that your Association will hold its meeting, starting May 10, in our city. We wish to call your attention to the general atmosphere of hospitality that prevails in this community, truly making it "The Hostess City of the South".

The offices of the Chamber of Commerce of Savannah are at the disposal of your members during their stay. It will be a pleasure to serve you with information relative to the many historical sights and scenic beauties we know you will wish to see while in our midst.

We trust the business sessions of your convention will prove fruitful but not too strenuous to prohibit your enjoying the many entertainment features of Savannah, the City of Pleasant Memories.

W. Lee Mingledorff, Jr., President.

* * *

On behalf of the Georgia Medical Society it is my honor and privilege to invite the members of the Medical Association of Georgia and their wives to Savannah May 10-13, to attend the One Hundredth Anniversary meeting of the Medical Association of Georgia, and to join with the Georgia Medical Society and The Woman's Auxiliary in the celebration. A centennial that represents one hundred years of unselfish and devoted service to the people of Georgia—services of untold and indescribable worth rendered to the people of this Great State, the Empire State of the South, by our fathers and grandfathers, members of the Medical Association of Georgia. Let us commemorate the deeds of these grand old forbears—deeds of selfless

devotion to the healing art. Let us consecrate ourselves anew to the ideals for which they lived and died, and let us strive to make good medical care available to all of the people of Georgia at a premium the people can afford to pay; such is our responsibility.

The Georgia Medical Society, the Woman's Auxiliary and the people of Savannah, pledge you that no pains shall be spared to make your visit with us a pleasure long to be remembered.

*John L. Elliott, M.D., President
Georgia Medical Society.*

THE ASSOCIATION'S FIRST 100 YEARS

The Medical Association of Georgia is 100 years old. Its organization meeting was held in Macon March 20, 1849.

But organized medicine in Georgia began with the founding of the Georgia Medical Society (Chatham County) 145 years ago. A few more years and the Richmond County Medical Society was organized. Still later more county medical societies were started. The first effort directed towards the organization of a State Medical Association was the organization of the Central Medical Society, which held two or three meetings at Milledgeville. It has been said that this Central Medical Society failed for the reason all county medical societies then existent in Georgia were not invited to participate in the affairs of the organization.

Finally, with the organization of what is known now as the Medical Association of Georgia, with 76 charter members, at the end of fifty years its members numbered 475. Its assets amounted to \$160.09. Today its members number 2202. Its assets cannot be valued in dollars and cents, though it can be said now that the Association is on a sound financial basis.

AMERICAN MEDICAL ASSOCIATION ASSESSMENT

In this *Journal* much has been said regarding the achievements of our forefathers. Surely they did the best they could under the circumstances of their time on this earth. We honor them now, and they should be honored. They did the best they knew, and many of them rode the muddy roads of dear old Georgia in an effort to alleviate the suffering of the people of this commonwealth. In their day there was little highpowered organization of medical affairs. They led the simple life, but they supported the Medical Association of Georgia and the American Medical Association in their work.

Today is another day. The complexities of life, and of organization, are before us. Both the Medical Association of Georgia and the American Medical Association are now 100 years old. All of us are proud of the record of these organizations. The Medical Association of Georgia has never levied a special assessment

against its members. The American Medical Association never levied an assessment against its members until it was compelled to do so. All of us, by virtue of our membership in our State Medical Association, are members of that great national organization. We should be proud of this fact. It affords us new opportunities; new friendships; more influence.

In our great debt to our forefathers in medicine, many of whom we can call grandfather, when we compute the obligation in dollars and cents, and this is what all of us should do now, and when we pay the \$25 current assessment of the American Medical Association, we are paying only 25 cents per year for what we enjoy now; namely, being a member of the greatest medical association in the world—the American Medical Association. If you have not paid this assessment through your county medical society, please do so now. Checks should be made payable to the American Medical Association and sent to the Secretary-Treasurer of the Medical Association of Georgia.

THE CHALLENGE OF MEDICINE

Remarks by Shields Warren, M.D., Director, Division of Biology and Medicine, U. S. Atomic Commission, to winners of the Eighth Annual Science Talent Search, Hotel Statler, Washington, D. C., Friday, March 4, 1949.

The past few years have seen enormous strides in the control of the infectious diseases. Some have been eliminated by knowing their cause and striking at that directly, as in the case of typhoid fever by sanitation. Still others, such as malaria, have been abated by destroying the agent which transfers the infection from one person to another, as, for example, mosquito control in handling malaria or DDT as a means of wiping out the lice that transmit European typhus. Some of you may have read the fascinating book by the late Hans Zinsser, "Rats, Lice and History," in which he pointed out the important role that infectious diseases had played in the rise and fall of nations or even of whole civilizations.

Still other diseases have been controlled by immunization, which makes ineffective the attack by the causative germ on the host. Smallpox is now rare in civilized countries, thanks to this. When I was a medical student diphtheria was common. Now medical students have to be taught what it looks like

from wax models, because immunization has made the disease so rare.

The one group of the infectious diseases most resistant to control at the present time is that of the virus diseases. We can alleviate the damage done by infantile paralysis, for example, but we cannot yet see clearly how it is transmitted. Encephalitis is another type of virus disease not clearly understood nor adequately controlled.

The chief problem that faces us today is that of the degenerative diseases, and it is here that those of you interested in medicine will find a challenge and reap a gratifying harvest of reward should your efforts be successful. The degenerative diseases—cancer, hardening of the arteries, diabetes and arthritis, to mention only a few—are to the best of present knowledge engendered within us by unknown factors. In general little progress in controlling them and insufficient progress in treating them has been made.

You are embarking upon your scientific careers at a singularly fortunate time, one in which a new tool as important as the microscope has recently been handed to investigators. Although techniques are in a sense sterile unless applied, the development of new types of techniques always opens new frontiers and stimulates new pathways of research. Such an event, the scope of which can be but dimly appreciated, has recently occurred in the development of atomic energy. First a revolutionary concept in physics has been developed and proved and active experimentation as to its potentialities are well under way. Second, a method of tagging atoms by radioactivity so that chemical and biologic processes can be followed through in great detail is now at hand. Through this radioactivity accurate measurement of minute quantities is now feasible, for as little as one million billionth of an ounce of radio phosphorus may be detected. Third, advance in

knowledge of biologic effects of radiation permits changing some hereditary characteristics in plants or animals.

In dealing with these new forces new precautions have had to be developed and new means of insuring safety of those working with them. For example, there had been about $2\frac{1}{2}$ pounds of radium refined up to 1941. In refining and using that radium about 100 persons had lost their lives. In the development of atomic energy under the Manhattan Project and the Atomic Energy Commission radioactive material the equivalent of hundreds of tons of radium have been handled and only two persons have been killed.

The whole field of industrial and of everyday safety is one that challenges not only the medical man but all interested in the welfare of humans. In spite of the costly slaughter going on on our highways every day, no significant attention has yet been given it by the bulk of our population. Studies of the accident-prone drivers, of the experience of cities with rigid traffic control have shown that much can be done to save life and prevent injury.

It is sometimes said by the emotional and the pessimistic that science should hold its hand and wait for the ethical and spiritual side of man to catch up, that tools have been given him beyond his power to use.

On the contrary, it is absolutely necessary that science go on in its efforts to read the riddle of the universe. I have no doubt that those who see in our opportunity to utilize atomic energy only a cause for regret and fear had their counterpart in those who viewed with alarm the development of the printing press and predicted dire things from the steam engine. Was the world better when it was periodically swept by famine and pestilence, when such knowledge as existed and such power as could be evolved was the privilege of few? Through unremitting search for truth in science, through

recognition that assumption, prejudice and falsehood cannot exist there, let us hope that truth, understanding and intolerance of wrong will be further extended in human relations.

AVERAGE AGE OF PHYSICIANS DECLINES

The average age of physicians in the United States is slightly less today than it was at the outbreak of World War II, according to a report by Frank G. Dickinson, Ph.D., Chicago, director of the Bureau of Medical Economic Research of the American Medical Association.

The report appears in the January 1 issue of *The Journal of the American Medical Association*.

This age decrease reflects the "relatively large number of physicians trained since 1940," Dr. Dickinson says.

Statistics are for all physicians in the United States, including interns, residents, and doctors not in active practice. The median age of the 199,745 doctors of the nation is 44.4 years. In 1940 the median age for 175,146 doctors was 45.8 years.

The percentage of all physicians under 50 years rose from 57.5 in 1940 to 60.2 in 1948. In the age group 35 to 49 the percentage rose from 31.4 to 36.5.

"The medical population has increased 14 per cent since 1940 while the total population of the country increased only 12 per cent," Dr. Dickinson points out. "Each new physician is destined to remain in the medical population approximately 40 years."

The number of physicians and their median age for each state are given as follows:

Alabama 2,227, 48.1; Arizona 794, 44.4; Arkansas 1,728, 55.2; California 16,045, 45.2; Colorado 2,216, 45.5; Connecticut 3,267, 42.8; Delaware 440, 43.6; Florida 2,925, 49.5; Georgia 3,126, 45.5; Idaho 470, 45.0; Illinois 13,320, 46.2; Indiana 4,104, 45.5; Iowa 2,934, 49.7; Kansas 2,206, 46.6; Kentucky 2,662, 48.7; Louisiana 3,080, 38.7; Maine 997, 49.8; Maryland 3,715, 40.3; Massachusetts 9,078, 42.9.

Michigan 7,173, 43.8; Minnesota 4,290, 41.0; Mississippi 1,507, 52.9; Missouri 5,345, 47.5; Montana 539, 46.1; Nebraska 1,666, 49.3; Nevada 201, 49.3; New Hampshire 729, 44.9; New Jersey 6,578, 43.2; New Mexico 497, 46.9; New York 30,981, 43.8; North Carolina 3,367, 43.4; North Dakota 464, 48.5; Ohio 10,173, 44.4; Oklahoma 2,245, 50.9; Oregon 1,813, 44.2; Pennsylvania 14,742, 43.0; Rhode Island 1,034, 44.6.

South Carolina 1,519, 45.9; South Dakota 515, 48.7; Tennessee 3,255, 44.8; Texas 7,868, 45.4; Utah 845, 40.5; Vermont 583, 43.3; Virginia 3,333, 44.5; Washington 2,774, 43.2; West

(Continued on page 194)

WOMAN'S AUXILIARY TO THE MEDICAL ASSOCIATION OF GEORGIA



MRS. S. A. ANDERSON
Milledgeville
President 1948-1949

INVITATIONS

WOMAN'S AUXILIARY TO THE GEORGIA
MEDICAL SOCIETY OF CHATHAM COUNTY

To the Members of the Woman's Auxiliary:

On behalf of the Woman's Auxiliary to the Georgia Medical Society, it gives me great pleasure to extend a cordial invitation to our state-wide membership to meet with us at the annual convention—our twenty-fifth anniversary—May 10-13.

We will be very happy for all doctors' wives, who are not members, to take part in the convention.

This meeting gives us an opportunity to renew old acquaintances and to welcome new members into the work of the organization, which is so essential to the medical profession at this particular time.

We hope that you will attend and help make this Centennial Celebration of the Medical Association of Georgia in historic old Savannah an occasion long to be remembered.

Sincerely,

MRS. JOHN L. ELLIOTT, President,
Woman's Auxiliary to the Georgia
Medical Society of Chatham County.

WOMAN'S AUXILIARY TO THE MEDICAL
ASSOCIATION OF GEORGIA

Dear Auxiliary Members:

The twenty-fourth convention of the Woman's Auxiliary to the Medical Association of Georgia will meet in Savannah May 10-13. It is indeed a great pleasure to extend to every Auxiliary member, and to every doctor's wife in Georgia, a most cordial invitation to attend this convention.

This being the Centennial Celebration of the Medical Association of Georgia and the Twenty-fifth Anniversary of the Auxiliary, our hostesses—The Auxiliary to the Georgia Medical Society (Chatham County)—are making plans for this convention to be an unforgettable event.

I am looking forward to seeing each one of you present. Come and let us make this convention an outstanding success.

Sincerely,

MRS. SAMUEL A. ANDERSON, *President*,
Woman's Auxiliary to the
Medical Association of Georgia.

PROGRAM

TWENTY-FOURTH ANNUAL CONVENTION
WOMAN'S AUXILIARY
to the
MEDICAL ASSOCIATION OF GEORGIA
Savannah
May 10-13, 1949

OFFICERS AND COMMITTEES

Executive Board

President—Mrs. Sam Anderson, Milledgeville.
President-Elect—Mrs. Harry Rogers, Atlanta.
First Vice-President—Mrs. J. R. S. Mays, Macon.
Second Vice-President—Mrs. T. A. Peterson, Savannah.
Third Vice-President—Mrs. B. E. Collins, Waycross.
Recording Secretary—Mrs. W. D. Hall, Calhoun.
Corresponding Secretary—Mrs. Robert Crichton, Milledgeville.

Treasurer—Mrs. R. K. Winston, Tifton.
Historian—Mrs. W. J. Williams, Augusta.
Parliamentarian—Mrs. Bruce Schaefer, Toccoa.

Advisory Committee

Dr. C. H. Richardson, Chairman, Macon.
Dr. James N. Brawner, Atlanta.
Dr. Sam Anderson, Milledgeville.
Dr. Shelley Davis, Atlanta.
Dr. R. C. McGahee, Augusta.
Dr. Olin S. Cofer, Atlanta.
Dr. Enoch Callaway, LaGrange.

Chairmen of Standing Committees

Achievement Award—Mrs. Ralph McCord, Rome.
Archives—Mrs. Eustace Allen, Atlanta.
Bulletin—Mrs. Walker Curtis, College Park.
Doctors' Day—Mrs. Robert Greenblatt, Augusta.
Mrs. J. Bonar White Exhibit and
Scrapbook Awards—Mrs. J. L. Gallemore, Perry.
Press and Publicity—Mrs. Clifton Kemper, Atlanta.
Public Relations—Mrs. Shelley Davis, Atlanta.
Legislation—Mrs. John Elliott, Savannah.
Mrs. James N. Brawner Trophy—Mrs. W. G. Elliott,
Cuthbert.
Revisions—Mrs. Lee Howard, Savannah.
Research in Romance of Medicine—Mrs. Edgar H.
Greene, Atlanta.

Student Loan Fund—Mrs. J. Lon King, Macon.
Visual Education—Mrs. Ralph Fowler, Marietta.

Chairmen of Special Committees

Nurse Recruitment—Mrs. Ralph Chaney, Augusta.
Social Service—Mrs. Wm. K. Jordan, Macon.

DISTRICT MANAGERS

First District—Mrs. T. A. Peterson, Savannah.
Second District—Mrs. Cecil N. Brannen, Moultrie.
Third District—Mrs. Schley Gatewood, Americus.
Fifth District—Mrs. Edgar M. Dunstan, Decatur.
Sixth District—Mrs. J. R. S. Mays, Macon.
Seventh District—Mrs. John McGhee, Cedartown.
Eighth District—Mrs. Thomas J. Ferrell, Waycross.
Ninth District—Mrs. Robert Jones, Canton.

PRESIDENTS OF COUNTY AUXILIARIES

Baldwin—Mrs. E. W. Allen, Milledgeville.
Barrow—Mrs. W. T. Randolph, Winder.
Bibb—Mrs. Chas. J. Woods, Macon.
Bulloch-Candler-Evans—Mrs. J. L. Nevil, Metter.
Burke-Jenkins-Screven—Mrs. Cleveland Thompson, Millen.
Chatham—Mrs. John L. Elliott, Savannah.
Cherokee-Pickens—Mrs. Charles Andrews, Canton.
Colub—Mrs. R. W. Fowler, Marietta.
Coffee—Mrs. Dan A. Jardine, Douglas.
Colquitt—Mrs. John F. McCoy, Moultrie.
Carroll-Douglas-Haralson—Mrs. R. L. Berry, Villa Rica.
Dougherty—Mrs. Frank Thomas, Albany.
DeKalb—Mrs. W. P. Smith, Decatur.
Dodge-Pulaski-Bleckley—Mrs. James W. Thomson, Eastman.
Floyd—Mrs. Emmett S. Brannon, Rome.
Fulton—Mrs. Shelley Davis, Atlanta.
Gordon—Mrs. W. D. Hall, Calhoun.
Glynn—Mrs. Haywood Moore, Brunswick.
Gwinnett—Mrs. W. W. Puett, Norcross.
Habersham—Mrs. J. B. Jackson, Clarkesville.
Muscogee—Mrs. Luther H. Wolff, Columbus.
Peach-Houston—Mrs. J. L. Galloway, Perry.
Randolph-Terrell—Mrs. A. R. Sims, Richland.
Richmond—Mrs. R. C. Major, Augusta.
Sumter—Mrs. John H. Robinson, III, Americus.
Stephens—Mrs. Julian Watters, Toccoa.
Tift—Mrs. Richard K. Winston, Tifton.
Ware—Mrs. W. P. Stoner, Waycross.
Washington—Mrs. J. B. Dillard, Davisboro.
Whitfield—Mrs. Fred Ragland, Dalton.

PAST PRESIDENTS AND CONVENTIONS

Honorary President for Life—Mrs. James N. Brawner, Atlanta.
1924—Augusta—(Organization)—Mrs. C. W. Roberts, Atlanta, Temporary Chairman.
1925—Atlanta—Mrs. James N. Brawner, Atlanta.
1926—Albany—Mrs. William H. Myers, Savannah.
1927—Athens—Mrs. C. W. Roberts, Atlanta.
1928—Savannah—Mrs. Paul Holiday, Athens, (Mrs. J. C. Moore, Gaffney, S. C.)
1929—Macon—Mrs. Charles C. Hinton, Macon.
1930—Augusta—Mrs. Marion T. Benson, Atlanta.
1931—Macon—Mrs. Charles C. Harrold, Macon.
1932—Savannah—Mrs. Ralston Lattimore, Savannah.
1933—Macon—Mrs. S. T. R. Revell, Louisville.
1934—Augusta—*Mrs. J. Bonar White, Atlanta.
1935—Atlanta—Mrs. J. E. Penland, Waycross.
1936—Savannah—Mrs. Ernest R. Harris, Winder.
1937—Macon—Mrs. William R. Dancy, Savannah.
1938—Augusta—Mrs. Ralph Chaney, Augusta.
1939—Atlanta—Mrs. Warren A. Coleman, Eastman.
1940—Savannah—Mrs. Eustace A. Allen, Atlanta.
1941—Macon—Mrs. H. G. Banister, Ilia.
1942—Augusta—Mrs. Lee Howard, Savannah.
1943—Atlanta—Mrs. J. Lon King, Macon.
1944—Savannah—Mrs. Olin S. Cofer, Atlanta.
1946—Macon—Mrs. W. T. Randolph, Winder.
1947—Augusta—Mrs. Bruce Schaefer, Toccoa.
1948—Atlanta—Mrs. W. G. Elliott, Cuthbert.

* Deceased.

WOMAN'S AUXILIARY TO THE GEORGIA MEDICAL SOCIETY (CHATHAM COUNTY) CONVENTION COMMITTEES

General Chairman

MRS. CHARLES USHER

Credentials and Registration

Mrs. Hugo Johnson, <i>Chairman</i>	Mrs. George Faggart Mrs. David Robinson
Mrs. R. E. Graham	Mrs. A. H. Center
Mrs. H. M. Kandel	Mrs. A. A. Morrison, Sr.
Mrs. H. Y. Righton	Mrs. Leonard Rabhan

Arrangements

Mrs. T. A. Peterson, <i>Chairman</i>	Mrs. J. L. Elliott Mrs. Charles Usher
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Banquet Decorations

Mrs. W. O. Bedingfield, <i>Chairman</i>	Mrs. Ruskin King Mrs. L. K. Powers
Mrs. E. N. Maner	Mrs. Ralph Bowden
Mrs. G. H. Lang	Mrs. E. T. Upson
Mrs. J. K. Train	Mrs. W. L. Osteen
Mrs. J. E. Porter	Mrs. S. D. Stoddard
Mrs. J. H. Pinholster	Mrs. A. J. Waring

Tea

Mrs. E. N. Gleaton, <i>Chairman</i>	Mrs. C. A. Henderson Mrs. C. R. A. Redmond
Mrs. L. W. Shaw	Mrs. T. A. Peterson
Mrs. Walter Brown	Mrs. S. C. Lynn
Mrs. H. C. Frech	Mrs. J. K. Stalvey
Mrs. J. C. Meits	Mrs. L. W. Williams
Mrs. Harold Smith	

Transportation

Mrs. Leon Holloman, <i>Chairman</i>	Mrs. E. C. Demmond Mrs. E. S. Osborne
Mrs. D. B. Fillingim	Mrs. Charles L. Prince
Mrs. R. L. Oliver	Mrs. Howard Morrison
Mrs. John Sharpley	Mrs. Allen Coward
Mrs. Oscar Lott	Mrs. L. M. Friedman
Mrs. G. T. Olmstead	

Memorial

Mrs. Ralston Lattimore

Timekeepers

Mrs. R. V. Martin, <i>Chairman</i>	Mrs. Harold Smith Mrs. C. W. Westerfield
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Mrs. C. G. Redmond

Exhibits

Mrs. Jacob Rubin, <i>Chairman</i>	Mrs. Stephen Lange Mrs. Emerson Ham
--------------------------------------	--

Pages

Mrs. W. R. Dancy, <i>Chairman</i>	Mrs. Harry Rollings Mrs. Robert A. Sammons
Mrs. William Fulmer	Mrs. William Osborne
Mrs. Lee Howard, Jr.	Mrs. John Howard

Advisory

Mrs. Lee Howard

Publicity

Mrs. H. M. Kandel, <i>Chairman</i>	Mrs. J. K. Train, Jr. Mrs. G. W. Goldenstar
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Mrs. Joseph Pacifici

Hospitality

Mrs. H. H. McGee, <i>Chairman</i>	Mrs. D. J. McCarthy Mrs. E. R. Cook
Mrs. Julian Quattlebaum	Mrs. Thomas A. McGoldrick, Jr.
Mrs. Albert Kelly	Mrs. J. F. Chisholm
Mrs. Walter Kanter	Mrs. J. W. Daniel
Mrs. Lawrence Lee	Mrs. V. H. Bassett
Mrs. Henry Levington	Mrs. James Craig
Mrs. C. F. Holton	Mrs. R. B. Gottschalk
Mrs. H. J. Portman, Jr.	Mrs. H. T. Exley
Mrs. Charles Sax	Mrs. G. L. Touchton
Mrs. E. F. Rosen	Mrs. H. F. Sharpley, Jr.
Mrs. W. D. Wilson	Mrs. A. A. Morrison, Jr.
Mrs. Everett Iseman	Mrs. Ernest Johnson
Mrs. H. T. Compton	Mrs. P. H. Smith
Mrs. Robert Drane	Mrs. G. H. Lang
Mrs. W. R. Dancy	
Mrs. J. T. Burkhalter	

Open House

Mrs. J. S. Howkins,
Chairman
Mrs. H. H. McGee
Mrs. L. C. Watkins
Mrs. G. H. Johnson, Jr.
Mrs. Lee Howard, Sr.
Mrs. Joseph Pacifici
Mrs. T. A. Peterson
Mrs. J. C. Metts
Mrs. A. F. Williams
Mrs. Walter Brown
Mrs. Stephen Lange
Mrs. H. M. Kandel

Mrs. L. W. Williams
Mrs. W. R. Dancy
Mrs. Jules Victor
Mrs. J. K. Train, Jr.
Mrs. John Sharpley
Mrs. C. R. A. Redmond
Mrs. H. C. Frech
Mrs Julian Quattlebaum
Mrs Emerson Ham
Mrs. W. O. Bedingfield
Mrs. W. L. Osteen
Mrs. M. M. Schneider
Mrs. Charles Usher

PROGRAM
HEADQUARTERS, HOTEL DeSOTO*Registration*

Tuesday, May 10, 2:00 P. M. to 6:30 P. M.
Wednesday, May 11, 9:00 A.M. to 12:30 P. M.
Thursday, May 12, 9:00 A. M. to 12:30 P. M.

PROGRAM AND ENTERTAINMENT

Tuesday, May 10, 3:30 P. M.—Executive Board Meeting.
Tuesday, May 10, 9:00 P. M. to 11:00 P. M.—Reception.
Dr. and Mrs. John L. Elliott will entertain at St. John's Parish House in honor of State and National Officers. All members of State Medical Association and their wives are invited.
Wednesday, May 11, 10:00 A. M. to 12:30 P. M. General Meeting.
Wednesday, May 11, 1:30 P. M. Luncheon at General Oglethorpe Hotel.
Wednesday, May 11, 4:30 P. M. to 6:00 P. M. Tea at the home of Dr. and Mrs. L. W. Shaw, Isle of Hope. Given by the Woman's Auxiliary to the Georgia Medical Society.
Wednesday, May 11, 8:00 P. M.—Public Meeting Medical Association of Georgia.
Thursday, May 12, 10:00 A. M. to 12:30 P. M.—General Meeting.
Thursday, May 12, 2:00 P. M.—Tour of old homes and gardens, sponsored by Christ Church Auxiliary. Optional.
Thursday, May 12, 7:30 P. M.—Joint Banquet. All members of the Medical Association and their wives are invited.

GENERAL MEETING
Hotel DeSoto

Wednesday, May 11, 1949, 10:00 A. M.
PROGRAM

Call to Order by the President, Mrs. Sam Anderson, Milledgeville.

Invocation

Dr. Leroy G. Cleverdon, Savannah, Pastor First Baptist Church.

Pledge of Loyalty

Mrs. Eustace A. Allen, Atlanta

Address of Welcome

Mrs. John L. Elliott, Savannah, President of the Woman's Auxiliary to the Georgia Medical Society (Chatham County).

Response to Address of Welcome

Mrs. Milford Hatcher, Macon

Introduction of Officers and Honor Guests

Mrs. Lee Howard, Savannah

History of Twenty-Five Years and Presentation of Past Presidents by Organization Chairman

Mrs. C. W. Roberts, Atlanta

*Address**"The Auxiliary Follows Through"*

Dr. Edgar H. Greene, Atlanta, President of the Medical Association of Georgia

*Address**"The Medical Profession and Public Education"*

Dr. Enoch Callaway, LaGrange, President-Elect of the Medical Association of Georgia

Rules Governing Convention Procedure

Mrs. Bruce Schaefer, Toccoa, Parliamentarian.

Introduction of Pages

Mrs. W. R. Dancy, Savannah
Report of Executive Committee
Report of District Managers
Report of County Presidents
Report of Registration Committee
Mrs. G. H. Johnson, Sr., Savannah,
Chairman of Registration.

Report of Entertainment Committee

Mrs. Charles Usher, Savannah, General Chairman

*Business**Reading of Minutes**Adjournment***GENERAL MEETING****HOTEL DeSOTO**

Thursday, May 12, 1949, 10:00 A. M.

Call to Order by the President, Mrs. Sam Anderson, Milledgeville.

Invocation

Dr. Jack Anderson, Savannah, Pastor, Wesley Monumental Methodist Church.

Report of Advisory Committee to the Woman's Auxiliary to the Medical Association of Georgia

Dr. C. H. Richardson, Macon, Chairman.

Address

Mrs. Joseph W. Kelso, Oklahoma City, Okla., President, Woman's Auxiliary to the Southern Medical Association.

Memorial Service

Mrs. Ralston Lattimore, Savannah

Report of Meeting of Woman's Auxiliary to the American Medical Association

Mrs. Harry Rogers, Atlanta, President-Elect of the Woman's Auxiliary to the Medical Association of Georgia

Report of Meeting of Woman's Auxiliary to the Southern Medical Association

Mrs. L. W. Williams, Savannah

Reports of Officers

Report of Auditing Committee

Report of Resolutions Committee

Report of Registration Committee

Mrs. G. H. Johnson, Sr., Savannah

Report of Awards Committee

Mrs. W. G. Elliott, Cuthbert, Mrs. J. L. Gallemore, Perry, and Mrs. Ralph McCord, Rome,

Report of Courtesy Committee

Business

Report of Nominating Committee

*Election of Officers**Installation of Officers*

Presentation of President's Pin to the Retiring President

*Adjournment***POST-CONVENTION BOARD MEETING**

Mrs. Harry Rogers, Atlanta

RULES TO GOVERN THE CONVENTION

1. To gain recognition, a delegate is requested to rise, address the chair, give her name and the name of her auxiliary.

2. No delegate shall speak more than twice on the same subject, and is limited to two minutes each time.

3. Reports shall not be read from auxiliaries which are not represented by delegates but shall be filed with the secretary.

4. All original motions or resolutions shall be made by submitting two copies; one to the Resolutions Committee, and one to the Recording Secretary.

5. Reports of delegates and district managers are limited to two minutes.

6. No one is entitled to vote before she is registered.
7. All persons appearing on the program must be seated near the platform when the session opens.
8. Badges must be worn by members of the voting body during all general sessions of the convention.
9. Delegates' privileges are not transferable.

Whispering conversations greatly retard the business of the meeting; order must be maintained at all times. Please be prompt. Meetings will begin promptly at the time announced. Reports must conform to the time allotted.

PLEDGE

"I pledge my loyalty and devotion to the WOMAN'S AUXILIARY TO THE MEDICAL ASSOCIATION OF GEORGIA. I will support its activities, protect its reputation, and ever sustain its high ideals.

In Unison

"Keep us, O God, from pettiness; let us be large in thought, word and deed.

Let us be done with fault-finding, and leave off self-seeking. May we put away pretense, and meet each other face to face, without self-pity and without prejudice.

May we never be hasty in judgment, and always generous. Let us take time for all things; make us to grow calm, serene, gentle.

Teach us to put into action our better impulses, straightforward and unafraid. Grant that we may realize it is the little things that create differences; but in the big things of life we are one.

And may we strive to teach and to know the great, common woman's heart of us all, and O Lord God, let us not forget to be kind."

AVERAGE AGE OF PHYSICIANS DECLINES

(Continued from page 190)

Virginia 1,834, 47.7; Wisconsin 3,870, 44.8
Wyoming 253, 46.5; District of Columbia 4,118,
41.7.

Numbers of young physicians holding internships and residencies in metropolitan areas probably account for the lower median ages of physicians in thickly populated states, Dr. Dickinson indicates.

"The available supply of medical service cannot be measured by crude numbers of living physicians, since they include interns and residents still in training and physicians not engaged in the active practice of medicine," the report says.

"An adequate inventory of medical service must also include an evaluation of the contributions of the large force of technicians and medical assistants who enable the modern physician to render far more medical service than was possible only a decade ago."

An accurate analysis of medical service must await the completion of the medical service area study now being made by the bureau, Dr. Dickinson emphasizes.

NEWS ITEMS

Dr. Wade H. Baggs, Jr., a native of Camilla, recently opened offices in the Commercial Building, Moultrie. Practice limited to pediatrics. Dr. Baggs graduated from Emory University School of Medicine, Atlanta. He did post-graduate work at Washington University School of Medicine, St. Louis, Mo., and interned for a year at St. Louis Children's Hospital. He spent several months at Henrietta Egleston Children's Hospital, Atlanta, and nine months at Duvall County Hospital, Jacksonville, Fla. In addition to the above he spent one year at Presbyterian Hospital, Charlotte, N. C., and a year at Grady Memorial Hospital, Atlanta. He served in the Army Medical Corps during World War II.

* * *

The Edgar Ballenger Memorial Lectureship was recently established by Dr. Harold P. McDonald, Atlanta, honoring the late Dr. Edgar Garrison Ballenger. Dr. Ballenger will long be remembered for his many contributions to the field of urology and his leadership in this specialty. He was president of the American Urological Association in 1938 and president of the Southern Medical Association in 1945. It is the purpose of this lectureship to contribute to the memory of Dr. Ballenger in a manner of which he would have approved personally, by bringing to Atlanta each year one of the country's eminent urologists who will give an educational lecture on some urologic subject of general interest. Recent developments in the field of urology, experimental and clinical, will be stressed.

The first Ballenger Memorial lecture was given by Dr. Reed M. Nesbit, Ann Arbor, Mich., professor of urology of the University of Michigan Medical School. Dr. Nesbit is widely known as a teacher and lecturer, as well as leader in the field of urologic research. He is the author of textbooks on urologic surgery and teaching manuals for urologic students. Dr. Nesbit discussed "Some Pitfalls in the Diagnosis of Hydronephrosis." The lecture was presented following the semi-monthly dinner meeting of the Fulton County Medical Society at the Academy of Medicine, Atlanta, March 17. Moderator: Dr. John W. Turner, chairman, Committee on Scientific Work. "In Memoriam—Dr. Edgar G. Ballenger", Dr. Frank K. Boland; Dr. Harold P. McDonald introduced Dr. Reed M. Nesbit.

* * *

Dr. George S. Baker, of the neurologic surgery section, Mayo Clinic, Rochester, Minn., was recently guest of Oliver General Hospital, Augusta, where he conducted ward conferences, clinics and lectures in his specialty. A reception was given for the noted surgeon by Col. Earl C. Lowry, chief of Surgical Service. Dr. Baker spoke at the monthly professional staff conference of Oliver General Hospital, to which all physicians and surgeons of Augusta were invited. His subject was "A Clinical Appraisal of the Protruded Intervertebral Disc Problem." The lecture was recorded for the surgical library at the hospital. Dr. Baker, associate professor of neurosurgery at Mayo Foundation, is a native of Pikesville, Md., and graduated from the University of Maryland School of Medicine and College of Physicians and Surgeons, Baltimore, Md., in 1933. He served as major in the medical corps of the Army during World War II. He was discharged in 1945 and returned to the Mayo Clinic, Rochester, Minn.

* * *

Dr. Enoch Callaway, III, LaGrange, who was graduated from Columbia University Physicians and Surgeons, New York City, in 1947, has recently been promoted from resident physician in Worcester Hospital, Worcester, Mass., which position he has held for the past six months, to junior psychiatrist. In June he will receive a research fellowship in Worcester Hospital and in Worcester Foundation for Physiological Research and will be associated with Dr. Hoagland, well known

neurophysiologist. Dr. Callaway served his first year internship at Grady Memorial Hospital, Atlanta.

* * *

Dr. Hayes Cluxton, Savannah, announces his association with his twin brother, Dr. Harley E. Cluxton, Jr., at 124 East Jones Street, Savannah. Dr. Harley E. Cluxton will limit his practice to internal medicine with special reference to endocrinology, including diabetes and rheumatic diseases, arthritis and allied conditions. Dr. Hayes Cluxton will limit his practice to medicine and surgery.

* * *

The Dougherty County Medical Society met at the Phoebe Putney Hospital, Albany, February 26. Nearly 50 physicians from Dougherty and surrounding counties were present to hear an address by Dr. R. M. S. Barrett, St. Louis, Mo., chief anesthesiologist at St. Anthony's Hospital, on "Safe Technic in the Control of Pain." Considerable advances in the field of anesthesia during the last 100 years, Dr. Barrett pointed out, have proven invaluable in diagnosis, prognosis and therapeutics. Progress, however, he added, has been hampered by the relatively small number of physicians trained in the art of anesthesia in the United States. There are only 487 approved residencies in this country, he said. "Nurses, particularly in the South," he declared, "have done an excellent job in anesthesia and will have to continue until more physicians are trained." Dr. Barrett used slide films covering anatomy, physiology and actual techniques of anesthesia in the treatment of numerous diseases. During his stay in Albany, Dr. Barrett was the guest of Dr. C. MacKenzie Brown, director of anesthesia at Phoebe Putney Hospital. The meeting was presided over by Dr. W. P. Rhyne, president of the society.

* * *

Dr. Charles Iverson Bryans, Jr., Augusta, recently attended a meeting of the South Atlantic Association of Obstetricians and Gynecologists in Williamsburg, Va., where he presented a paper on "Research in Eclampsia" by the department of obstetrics and gynecology of the University of Georgia School of Medicine, Augusta. The paper deals with research carried on by the department in relation to several hundred cases of eclampsia that have occurred at the University Hospital, Augusta.

* * *

The City Hospital, of Brunswick, recently had two experts from the U. S. Public Health Service to make a study of the hospital. Their report was forwarded to Dr. T. F. Sellers, Atlanta, State Director of Health, and will be used to develop a model coordination of hospital and health facilities in Georgia. Dr. M. E. Winchester, Brunswick, who as county health commissioner will add supervision of the hospital to his duties said it is not his intention to make any drastic changes immediately. He will expect to put into practice whatever recommendations are made for improvement of the present service. He said he will be happy to have all present personnel stay under his administration and that he will work toward earliest possible full accrediting by the American College of Surgeons. He expressed, "Hope we can build a reputation for efficiency equal to that of the Board of Health." He asserted Brunswick has as fine a hospital plant and physicians as any community its size and with cooperation it will be only a matter of time before the institution will be operating at full efficiency.

* * *

The Atlanta Radiological Society was organized March 11 at a called meeting of the radiologists of the city of Atlanta. It was decided to hold monthly meetings of the society, except during the three summer months, such meetings to be held on the second Friday evening of each month. The following officers were

elected: Dr. J. J. Clark, Atlanta, president; Dr. Charles A. Priviteri, Atlanta, vice-president, and Dr. Wm. W. Bryan, Atlanta, secretary-treasurer.

* * *

Dr. James M. Crawford, formerly of Rome, announces the opening of his offices in the Hotel Lincoln, Lincoln-ton, for the practice of medicine.

* * *

The Georgia Society of Ophthalmology and Otolaryngology held a two-day conference at the Hotel General Oglethorpe, Wilmington Island, Savannah, March 4-5. Officers of the society are Dr. Edwin N. Maner, Savannah, president; Dr. Charles K. McLaughlin, Macon, vice-president, and Dr. Braswell E. Collins, Waycross, secretary-treasurer. The meeting featured six outstanding doctors in the field of eye, ear, nose and throat medicine and surgery. The visiting lecturers included Dr. Paul A. Chandler, Boston, Harvard Medical School; Dr. Jack S. Guyton, Baltimore, Johns Hopkins University School of Medicine; Dr. Oscar C. E. Hansen-Pruss, Durham, N. C., department of allergy, Duke University School of Medicine; Dr. Marvin F. Jones, New York City, surgical director in otology, Manhattan Eye, Ear, and Throat Hospital; Dr. Ralph O. Rychnener, Memphis, University of Tennessee College of Medicine, and Dr. Fletcher D. Woodward, Charlottesville, Va., University of Virginia Department of Medicine.

* * *

Dr. Edgar H. Greene, Atlanta, president of the Medical Association of Georgia, urged Georgia's health and civic organizations to see that the newly-enacted premarital health bill is enforced. Dr. Greene at a "victory luncheon" recently held by 53 Georgia organizations, said: "Let's not go to sleep now that the bill is passed." The law was termed as "one of the finest pieces of legislation that passed in the recent General Assembly" by Dr. Herman L. Turner, president of the Georgia Citizens Council. The law, which goes into effect six months after its enactment, requires premarital examinations for syphilis before the marriage ceremony can be performed.

* * *

Dr. Clair A. Henderson, Savannah health commissioner, recently told nurses of Warren A. Candler and Saint Joseph's hospitals, Savannah, of the means of control of tuberculosis. He stated Battey State Hospital, Rome, has 1,400 beds, with a capacity of 3,000, but the hospital is in need of physicians. Dr. Henderson stated the Tuberculosis Sanitorium, Savannah, came about through the need of bed care and the concentrated efforts of the Chatham-Savannah Tuberculosis Associations to care for more cases resulting from their diagnostic and treatment clinics. As a result of this need the association deeded the hospital to the Health Department to operate. Chatham-Savannah Health Department now operates three diagnostic clinics and two treatment clinics for tuberculosis patients. The clinic now has two x-ray machines.

* * *

The Laurens County Medical Society held their annual dinner meeting at the Dublin Country Club, Dublin, March 22. The members of the society were guests of Drs. T. R. Cobh, Jr., president and R. G. Ferrell, Jr., vice-president. Dr. M. Fernan-Nunez, chief of laboratory service, VA Hospital, Dublin, gave an explanation of the National Health Insurance and how socialized medicine was working in England. Dr. O. H. Cheek, secretary-treasurer.

* * *

Dr. Harold P. McDonald, Atlanta, president of the Southeastern Section of the American Urological Association, presided over a sectional meeting held at Boca Raton, Fla., March 21-25. Other Atlanta physicians who participated included Dr. Stephen T. Brown, president of the Fulton County Medical Society, who is an executive committee member of the American Urological Association section, and Dr. Montague L. Boyd, Atlanta,

a member of the national association's editorial board. Dr. Spencer A. Kirkland, Atlanta, also attended the meeting.

* * *

Dr. W. C. McCarver, Jr., formerly of Glennville, announces the opening of his offices at 115 Academy Street, Gainesville, for the practice of general medicine. Dr. McCarver, a native Georgian, was born at Vidette, the son of Dr. and Mrs. W. C. McCarver. He graduated at the University of Georgia School of Medicine, Augusta, in 1942, and interned at the University Hospital, Augusta, and took his surgery residence at City Hospital, Winston-Salem, N. C. During the war Dr. McCarver served for three years on the surgical staff of McCloskey General Hospital, Temple, Texas. After his discharge he returned to Glennville for the private practice of medicine.

* * *

The Milledgeville State Hospital, Milledgeville, announces the appointment of a personnel director, and the addition of Dr. Wallace Gibson to the medical staff. Dr. Gibson is a graduate of the University of Georgia School of Medicine, Augusta, and completed his internship at Macon Hospital, Macon. Since then he has been in private practice at Sparta. It was also announced that Drs. Robert Waller and Norman Pursley have accepted posts at the hospital and will report for duty in July when their resident training is completed. Both are graduates of the University of Georgia School of Medicine, Augusta.

* * *

Dr. Ralph Monaco, Washington, D. C., was recently appointed pathologist at City Hospital, Columbus, Dr. J. A. Thrash, executive director, announced. Dr. Monaco assumed his duties March 15. He was pathologist and director of laboratories at Washington's 1,500-bed Gallinger Municipal Hospital. The appointment follows the resignation of two pathologists at City Hospital in the past year.

* * *

The Muscogee chapter of the American Cancer Society, Columbus, announces the opening of the renovated cancer detection center at 1444 Fourth Avenue, Columbus, with about \$4,000 worth of new equipment, March 10. The Muscogee chapter hopes to attain a goal of checking 20 persons a week at the now fully equipped center. Physicians for the new set-up will be sent to the center by the Muscogee County Medical Society. Dr. D. R. Venable, former pathologist at City Hospital, will head such work at the center. Dr. Wm. F. Jenkins, Columbus physician, is associated with the center. Dr. Enoch Callaway, LaGrange, president-elect of the Medical Association of Georgia and chairman of the executive committee of the Georgia division of the American Cancer Society, was guest speaker at a luncheon following the formal opening exercises.

* * *

Dr. J. B. Neighbors, Jr., Athens physician, is chairman of the Athens Heart Association, which opens the way for citizens to contribute to the research program now being mapped out for the purpose of finding the key to heart diseases which hitherto have baffled medical science and caused more deaths than any other bodily ailment.

* * *

The Chatham-Savannah Tuberculosis and Health Association held its annual meeting at Hotel DeSoto, Savannah, March 10. Dr. M. Fernan-Nunez, Dublin, chief of laboratory service, Veterans Administration Hospital, was guest speaker. The text of his address was that the voluntary medical agencies have always done a better job in their fields than have the government facilities, and there is every reason to believe that voluntary groups can solve the problem of adequate medical care for all the people better than any form of political medicine, such as national compulsory health insurance.

The Seventh District Medical Society held its meeting at the Trion Goff Culb, Trion, April 6. Members of the society were guests of the Chattooga County Medical Society at a barbecue. Program: Invocation by the Rev. Frank Prince, Trion, pastor of the Methodist Church; Address of Welcome by Dr. R. N. Little, Summerville; Reading of the Minutes; Report of Committees; Report of Councilor, Dr. W. H. Perkins, Marietta; Scientific papers: "Insulin Mixtures in Diabetes", Dr. Cliff Moore, Jr., and Dr. Cary Moore, both of Rome; discussion led by Drs. C. J. Watt, Rome, and Raymond F. Spanier, Cedartown; "Peripheral Neuropathy", Dr. Robert W. Graves, Rome; discussion by Drs. S. B. Kitchens, LaFayette, and E. A. Rosen, Dalton; "Surgical Management of Duodenal Ulcer", Dr. J. M. Higginbotham, Chattanooga, Tenn.; discussion by Drs. W. D. Hall, Calhoun, and Ralph N. Johnson, Rome; "Cancer—What Can We Do About It?", Dr. Lester Harbin, Rome; discussion Drs. Lloyd Wood, Dalton, and Fred Simonson, Chickamauga. Officers are: Dr. Inman Smith, Rome, president; Dr. Sam M. Howell, Cartersville, president-elect; Dr. Lee H. Battle, Jr., Rome, secretary-treasurer; Dr. W. H. Perkins, Marietta, councilor. Committee on arrangements Dr. J. J. Allen, chairman, Trion; Dr. W. U. Hyden, Trion, and Dr. Howell P. Hollbrook, Summerville.

The Woman's Auxiliary to the Seventh District Medical Society held its meeting at the Riegeldale Tavern, Trion, April 6. Program: Welcome by Mrs. W. U. Hyden, Trion; Response by Mrs. Ralph W. Fowler, Marietta; Reading of Minutes; Reports from County Auxiliaries; New Business; Election of Officers. "Psychosomatics of Allergy", Dr. Hal M. Davison, Atlanta. Officers are Mrs. John McGhee, Cedartown, district manager, and Mrs. Frank A. Blalock, Rome, secretary.

* * *

Dr. Thomas W. Stewart, Lithonia, was recently selected as the outstanding country doctor of Georgia. Announcement was made by WAGA radio station of Atlanta. An interview with Dr. Stewart was transcribed and will be presented at a later date through the Columbia Broadcasting System. City and country doctors chosen throughout the nation for the progress they have made in medicine will be heard along with Dr. Stewart. He began his practice in Lithonia more than thirty-three years ago after graduating from the University of Louisville School of Medicine, Louisville, Ky. The country doctor cures the sick, gives comfort where cure cannot be given and shoulders the responsibilities in the continuing struggle against human suffering. Reviewing the medical improvements, Dr. Stewart points out that physical diagnosis has not changed much, but x-ray, the electrocardiogram and other diagnostic aids have made detailed diagnosis possible, and that development of penicillin, the sulfa drugs and other miracle drugs have meant a great deal in the work of the general practitioner.

* * *

Dr. Ernest F. Wahl, Thomasville physician, is receiving the contributions for the Georgia Heart Association, which is affiliated with the American Heart Association, whose sole objective is to conduct a campaign to reduce the death incidence and to promote clinical procedures that will be effective in reducing heart mortality rates. Dr. Wahl is not making an extensive campaign but he feels a keen interest in this matter and believes that Thomasville will have a definite part in the work that is being promoted. Dr. Wahl has been a member of the American Heart Association for a number of years. Its work extends over a period of 27 years and is growing more in power and effectiveness as it is more understood by people generally.

* * *

Dr. John C. Withington, Savannah, announces the opening of his offices at 106 West Jones Street, Savannah, for the practice of internal medicine. Dr. Withington graduated from Duke University School of Medicine,

Durham, N. C., in 1946. Following his graduation he completed fifteen months' internship on the medical service, Grady Memorial Hospital, Atlanta. He was then appointed assistant resident on medical service Emory University Hospital, Emory University. He is a diplomate of the National Board of Medical Examiners, having completed the required examinations in June 1947. He was licensed to practice medicine in Georgia in October 1947. During the early days of World War II he held a commission in the Infantry Reserve but was not called to active duty. Later he was assigned to the ASTP unit at Duke. Since returning to Savannah last summer, Dr. Withington has been house physician at Telfair Hospital and will continue in that capacity.

* * *

Dr. John C. Withington, Savannah, resident physician at Telfair Hospital, recently gave an interesting talk before the monthly meeting of the Savannah Society of Medical Technologists held at the Telfair Hospital, Savannah. His subject was "Homologous Serum Juan-dice and Infectious Hepatitis" in connection with laboratory procedures. Plans are being completed for the convention of the Georgia Society of Medical Technologists which will be held in Savannah, May 12-14. The American Society of Medical Technologists will meet in Roanoke, Va., in June, at which the Savannah society will have a representative.

* * *

The Woman's Auxiliary to the Georgia Medical Society, Savannah, celebrated Doctors' Day and the dedication of the new Medical Hall, 612 Drayton Street, Savannah, March 30.

* * *

The Woman's Auxiliary to the Fulton County Medical Society entertained members of the Fulton County Medical Society on Doctors' Day at the Academy of Medicine, Atlanta, March 30. Program: Unveiling of portrait of Dr. Crawford W. Long. A floor show of home talent and a square dance.

* * *

The Georgia Medical Society held its meeting at the new Medical Hall, 612 Drayton Street, Savannah, March 8. Dr. Robert James Coffey, Washington, D. C., outstanding surgeon of Georgetown University School of Medicine, addressed the members of the Georgia Medical Society on the subject, "Premalignant and Malignant Lesions of the Lower Bowel." Dr. Sam Youngblood, Jr., secretary-treasurer.

* * *

Drs. George S. Roach, Jr., and Robert Brown, Atlanta, recently returned from the University of Pennsylvania School of Medicine, Philadelphia, Pa., after having completed courses in bronchoscopy and esophagoscopy. Drs. Roach and Brown are associated with Dr. Murdock Equen, Atlanta, Ponce de Leon Infirmary.

* * *

Dr. David M. Wolfe, Albany, Dougherty County health commissioner, in his annual report to the Board of Health, singles out the TB-VD survey in January 1948, adoption of the U. S. Public Health Service milk code and ordinance and airplane larvicide—all three steps taken for the first time last year—as the most important work of the health department. "More people received services from the various health programs in 1948 than in any previous year," declared Dr. Wolfe, pointing out that exclusive of the TB-VD survey, 16,527 persons were admitted to service through the various clinics. During the survey, 24,404 persons were examined for tuberculosis and venereal disease, making a grand total of 40,931. Congratulations!

* * *

The Georgia Chapter of the American Academy of General Practice will hold its first meeting at the Hotel DeSoto, Savannah, Georgia, at 11 a.m., Tuesday, May 10, 1949.

At this meeting the Georgia Chapter will be hosts at a luncheon, to its members and visitors. Dr. James

Edgar Paullin, Atlanta, past president of the American Medical Association will be the only speaker and his subject will be, "The Role of the General Practitioner in the Care and Treatment of the Sick."

A short business meeting will take place at 12 noon.

The meeting will adjourn in time to attend the first meeting of the House of Delegates of the Medical Association of Georgia.

Those desiring to attend, please notify Dr. Albert R. Bush, secretary, Hawkinsville, immediately.

* * *

The University of Georgia School of Medicine will offer the 6th Graduate Course in Office Endocrinology May 23-28, inclusive. As in the past, the course will be given under the direction of Dr. Robert B. Greenblatt and staff. Dr. Warren O. Nelson, Professor of Anatomy at the State University of Iowa College of Medicine, will be the lecturer.

OBITUARY

Dr. James Reuben Blitch, aged 80, Savannah physician, died at his home in Savannah February 13, 1949. Dr. Blitch was born near Ellabell and graduated from the University of Georgia School of Medicine, Augusta, in 1895. He was a member of the Lower Black Creek Primitive Baptist Church. He lived near Ellabell until his home was taken over by the government in the Camp Stewart reservation, at which time he moved to Savannah. Funeral services were held at Lower Black Creek Primitive Baptist Church, with the Rev. Perry Banks, pastor, officiating. Burial was in the church cemetery, Ellabell.

* * *

Dr. Thomas M. Cole, aged 48, prominent Albany physician and a former resident of Newnan, died at his Albany home following a heart attack February 28, 1949. He was born in Newnan, the son of Mrs. F. B. Cole and the late Mr. Cole and received his early education in the Newnan public schools, later attending Georgia Tech, Atlanta, and Columbia University, New York City. He graduated from the School of Medicine of the Royal Colleges, Edinburgh, Scotland, in 1940. While in Scotland he served with the armed forces during World War II, and was married to Miss Marita Hughes, Ayshire, Scotland. He was a member of St. David Lodge 133, F. & A. M., Mauchline, Scotland. Dr. Cole was a 32nd degree Scottish Rite Mason and a Kiwanian. He was a member of the Dougherty County Medical Society, the Medical Association of Georgia, and a fellow of the American Medical Association. Besides his wife, he is survived by his mother, Mrs. Clara N. Cole, and brother, Frank R. Cole, both of Newnan; one sister, Mrs. William Mallard, Charlotte, N. C. Funeral services were held from the graveside, with Dr. R. C. S. Young, the Rev. James G. Stertz and the Rev. Claude Hendrick officiating. Burial was in Oak Hill Cemetery, Newnan.

* * *

Dr. Claude Lee Penington, aged 58, well-known Macon specialist, died at University Hospital, Augusta, February 21, 1949. Dr. Penington was born at Wrens, son of Marcus Penington and Mrs. Cornelia Baggett Penington, and had made his home in Macon since 1917. He graduated at the University of Georgia School of Medicine, Augusta, in 1912. He served a year on the resident staff of the New York Eye and Ear Hospital and then spent two years at the Brooklyn Eye and Ear Hospital. He was a member and steward in Mulberry Street Methodist Church, Macon, a member of the Bibb County Medical Society, the Medical Association of Georgia, and a fellow of the American Medical Association. He is survived by his wife, the former Miss Evelyn Adams; two sons, Claude Penington, Jr., and Fred Penington, all of Macon; one brother, Luther Penington, Wrens. Funeral services were held at the Mulberry Methodist Church, with the Rev. M. E. Peavy officiating. Burial was in Felton Cemetery, Montezuma.

Dr. Peter Clark Quartermann, aged 65, prominent and beloved Valdosta physician, died of a heart attack January 8, 1949. Dr. Quartermann was born at Darien but moved to Valdosta as a lad. He graduated from the Atlanta College of Physicians and Surgeons, now Emory University School of Medicine, Atlanta, with honors in 1909. He was a member of the First Presbyterian Church and of the American Legion. During World War I he served as a medical officer with the armed forces. Dr. Quartermann served as president of the old Eleventh District Medical Society and as president of the South Georgia Medical Society, of which he was a member. He was a member of the Medical Association of Georgia and a fellow of the American Medical Association. For more than ten years he was physician for Lowndes County and was serving in that capacity at his death, having recently been elected for another term. He was greatly loved and respected by all with whom he came in contact. Survivors include his wife, the former Miss Catherine Staten, Valdosta; one daughter, Mrs. Helen Fisher, Richmond, Va.; one son, P. C. Quartermann, Jr.; three brothers and one sister. Funeral services were held at Sineath Funeral Home, with the Rev. Herbert Laws, pastor of the First Presbyterian Church, officiating. Burial was in Sunset Cemetery, Valdosta.

* * *

Dr. Olin Heard Weaver, aged 76, beloved Macon physician and surgeon, died at the home of his nephew, W. M. Weaver, 2559 Vineville Avenue, Macon, March 2, 1949. Dr. Weaver was the son of the late Judge W. M. and Margaret Nikelsan Weaver, Greensboro. He graduated from Emory University School of Medicine, Atlanta, in 1894. He was a member of the Bibb County Medical Society, the Medical Association of Georgia and a fellow of the American Medical Association. Dr. Weaver was a delegate from the Medical Association of Georgia to the American Medical Association. He was a member of the American College of Surgeons, the Rotary Club and Alpha Tau Omega Fraternity. Dr. Weaver had been on the staff of Macon Hospital since he came to Macon as superintendent in 1895. In May 1940 the new children's ward at Macon Hospital was dedicated to him, and in 1945 he was renamed head of surgical service at the hospital. He was re-elected president of the staff of the hospital in January 1945. His wife was the late Mrs. Georgia Charlton Weaver, and his daughter the late Mrs. James Lucas. He is survived by eight nephews, W. M. Weaver, Dr. H. G. Weaver, A. H. S. Weaver, all of Macon; Jack N., W. H., C. V., Olin H. Weaver, and T. J. Bethea. Eight nieces, Mrs. Margie Burks, Mrs. G. W. Lee, Mrs. Robert Prather, Jr., and a number of grand nieces and nephews. Funeral services were held at Memorial Chapel, with the Rev. J. A. Smith, Dr. Albert G. Harris, and Dr. Albert S. Trulock officiating. Burial was in Riverside Cemetery, Macon.

COUNTIES REPORTING FOR 1949

Bibb County Medical Society

President—W. Charles Boswell, Macon
President-Elect—C. H. Richardson, Jr., Macon
Vice-President—O. F. Keen, Macon
Secretary-Treasurer—A. M. Phillips, Macon
Delegates—J. D. Applewhite, Macon, and J. B. Kay, Byron
Alternate Delegates—C. N. Wasden and W. W. Baxley, Macon
Censor—C. H. Richardson, Sr., Macon

Georgia Medical Society

Chatham County

President—John L. Elliott, Savannah
President-Elect—H. M. Kandel, Savannah
Vice-President—Ralph O. Bowden, Savannah
Historian—Anne Hopkins, Savannah
Delegate—John L. Elliott, Savannah
Alternate Delegates—Ruskin King and Harry H. McGee, Savannah.

Chattooga County Medical Society
President—R. N. Little, Summerville
Vice-President—Wm. T. Gist, Summerville
Secretary-Treasurer—John J. Allen, Summerville
Delegate—Iowell P. Holbrook, Summerville

Cherokee-Pickens Medical Society

President—Robert T. Jones, III, Canton
Vice-President—I. F. Scofield, Tate
Secretary-Treasurer—Arthur M. Hendrix, Canton
Delegate—C. J. Roper, Jasper
Censors—J. T. Pettit, Canton; T. J. Vansant, Woodstock, and I. F. Scofield, Tate.

Colquitt County Medical Society

President—Edgar C. Holmes, Moultrie
Vice-President—J. E. Lanier, Moultrie
Secretary-Treasurer—P. D. Conger, Moultrie
Delegate—Edgar C. Holmes, Moultrie
Alternate Delegate—John W. McLeod, Moultrie
Censors—C. C. Brannen; Samuel M. Withers, and W. R. McGinty, all of Moultrie.

DeKalb County Medical Society

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Vice-President—John E. Beck, Decatur
Secretary-Treasurer—F. C. Powell, Decatur
Delegate—John T. Leslie, Decatur
Alternate Delegate—H. Homer Allen, Decatur

Gordon County Medical Society

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Vice-President—R. D. Walter, Calhoun
Secretary-Treasurer—Lewis R. Lang, Calhoun
Delegate—W. D. Hall, Calhoun
Alternate Delegate—J. E. Billings, Calhoun

Grady County Medical Society

President—A. B. Reynolds, Cairo
Secretary-Treasurer—J. V. Rogers, Cairo

Houston-Peach Medical Society

Secretary-Treasurer—A. G. Hendricks, Perry

Jackson-Barrow Medical Society

President—C. B. Lord, Jefferson
Vice-President—W. Q. Randolph, Winder
Secretary-Treasurer—Edwin H. Etheridge, Winder
Delegate—Alexander B. Russell, Winder

Jefferson County Medical Society

President—James W. Pilcher, Louisville
Vice-President—Walter J. Revell, Louisville
Secretary-Treasurer—J. J. Pilcher, Wrens
Delegate—John R. Lewis, Louisville
Alternate Delegate—Walter J. Revell, Louisville

Lamar County Medical Society

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Vice-President—John B. Crawford, Barnesville
Secretary-Treasurer—S. B. Taylor, Barnesville
Delegate—J. A. Corry, Barnesville

Laurens County Medical Society

President—Tyrus R. Cobb, Jr., Dublin
Vice-President—R. G. Ferrell, Jr., Dublin
Secretary-Treasurer—O. H. Cheek, Dublin
Delegate—Fred J. Coleman, Dublin
Alternate Delegate—A. G. Bell, Wrightsville
Censors—A. T. Coleman, Dublin; C. G. Moye, Brewton, and William A. Dodd, Dublin.

Polk County Medical Society

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Vice-President—Joseph E. Griffith, Rockmart
Secretary-Treasurer—John J. Word, Cedartown
Delegate—Cecil B. Elliott, Cedartown
Alternate Delegate—John M. McGhee, Cedartown
Censors—W. H. Lucas, Raymond F. Spanjer, and Wm. H. Blanchard, all of Cedartown.

Stephens County Medical Society

President—Arthur G. Singer, Jr., Toccoa
Vice-President—Henry H. McNeely, Toccoa
Secretary-Treasurer—C. L. Ayers, Toccoa
Delegate—W. Bruce Schaefer, Toccoa
Alternate Delegate—Robert E. Shiflet, Toccoa
Censors—Arthur G. Singer, Jr., Julian Q. Watters, and Chas. M. Henry, all of Toccoa.

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THE VALUE OF THE UTEROSACRAL LIGAMENTS IN UTERINE DISPLACEMENTS

ALBERT L. EVANS, M.D.
and
OLIN S. COFER, M.D.
Atlanta

Pathologic displacement of the uterus is one of the most common conditions that the gynecologist and general surgeon is called upon to correct. Numerous surgical procedures have been advocated and described. Many of these, however, fail to utilize the uterosacral ligaments which, in our opinion, are an important aid to obtaining a successful end result. Indeed, the most popular of all operations for retrodisplacement of the uterus, the Gilliam operation, ignores the uterosacral ligaments entirely.

The uterosacral ligaments (Figures 1 and 2) are flattened fibromuscular bands which pass backward from the upper part of the cervix, at the level of the isthmus, around the rectum to the first sacral vertebra opposite the lower border of the sacroiliac articulation. They are stationary supports to the uterus and oppose displacement of the cervix to the symphysis, thereby holding the cervix in the posterior part of the pelvis. Relaxation of the ligaments contributes to displacements of the uterus either downward or backward and also affects the line of force of the intra-abdominal pressure on the uterus. With the uterus in its normal position the intra-abdominal pressure is

applied to its posterior aspect and aids in maintaining the anteverted position. However, with weak uterosacral ligaments and anterior displacement of the cervix (Figure 3), the fundus falls back permitting the intra-abdominal pressure to strike the anterior aspect of the uterus, thus aggravating the displacement.

The round ligaments are universally used for suspension of the uterus, but if there is prolapse and the cervix is displaced anteriorly, shortening of these ligaments alone will many times fail to maintain the uterus in its normal position. The uterosacral ligaments alone oppose the cervix to the symphysis and in order to properly restore the normal cervical axis these ligaments must also be shortened.

It is our routine procedure in the surgical treatment of pathologic retroversion of the uterus to identify and shorten these ligaments. This is accomplished by first applying a Kelly forceps to the posterior aspect of the cervix at the isthmus. The clamp is then pulled anteriorly and inferiorly, thus making the ligaments taut (Figure 4). If the ligaments contain an adequate amount of fibromuscular structure they are sewed together with a continuous suture of No. 2 braided black silk, the suture ending at the isthmus and, when tied, pulls the ligaments snugly together. If, however, (Figure 5) the ligaments consist merely of peritoneal folds, new ligaments are constructed by first scarifying the folds and then utilizing a running suture of No. 2 braided black silk on either side. When these are tied a bunched ligament is obtained on each side which can then be further shortened if nec-

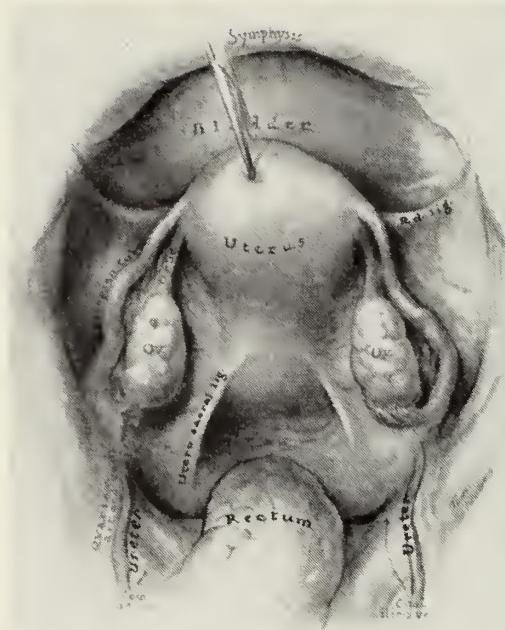


Figure 1. Normal relations of uterosacral ligaments as seen at laparotomy.

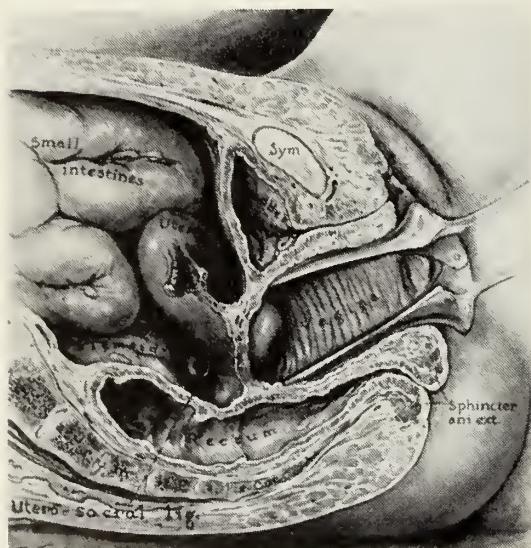


Figure 2. Normal relations of uterosacral ligaments as seen in sagittal section.

essary by suturing the ligaments to each other with interrupted black silk sutures.

With either technic it is important at all times to keep in mind the position of the ureters, for undue tension on the peritoneum might displace and kink the ureter, particularly so on the right. Also, the rectosigmoid should be protected from injury and the ligaments should not be sutured

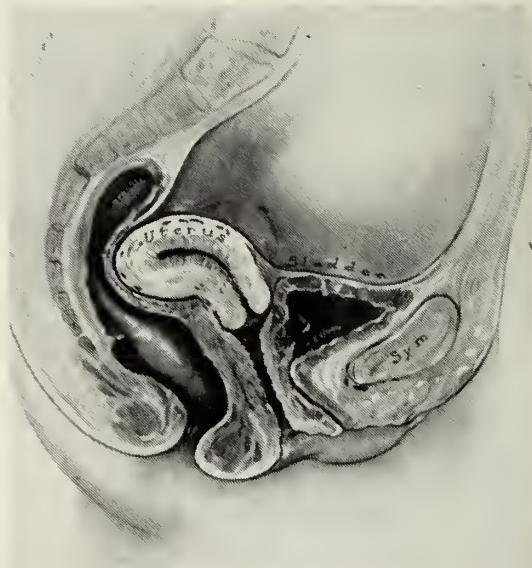


Figure 3. Retroversion of uterus showing cervix displayed anteriorly and fundus posteriorly.

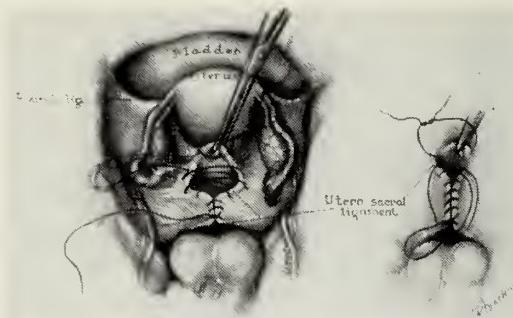


Figure 4. Technic of shortening uterosacral ligaments when ligaments are elongated.

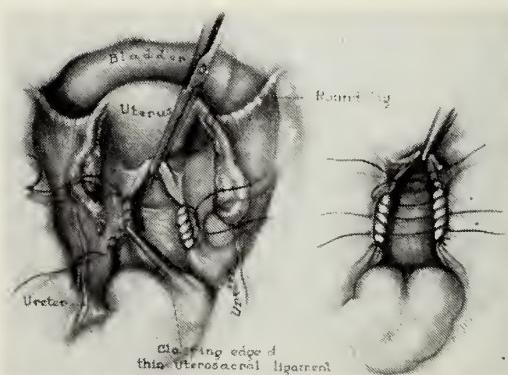


Figure 5. Technic of constructing uterosacral ligaments when mere peritoneal folds exist.

tight enough to constrict the bowel as it passes between them to the lower portion of the rectouterine pouch.

One hears frequently as an argument against complete hysterectomy the possi-

CATHETER LOOP EXTRACTION OF URETERAL CALCULI

CHARLES EBERHART, M.D.

Atlanta

and

JAMES L. CAMPBELL, JR., M.D.

Valdosta

Figure 6. Technic of utilizing uterosacral ligaments to suspend vaginal vault after total hysterectomy (after Curtis).

bility of vaginal vault prolapse. The utilization of the uterosacral ligaments, along with the cardinal ligaments to suspend the vaginal vault, almost eliminates this possibility. These ligaments can be easily identified (Figure 6) at time of abdominal or vaginal hysterectomy and sewed together with two or three interrupted sutures which will firmly anchor the vaginal vault.

Summary

1. Many surgical procedures for uterine displacement fail to utilize the uterosacral ligaments.

2. A review of the anatomy and function of the uterosacral ligaments has been given.

3. Techniques for use of the uterosacral ligaments in treatment of uterine displacements have been given.

4. It is felt that the uterosacral ligaments play an important role in the treatment of uterine displacements and deserve more attention than is generally given.

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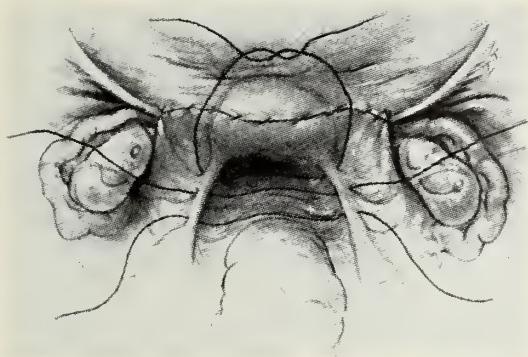
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HEALTHGRAMS

We must increase our "index of suspicion," and must learn to think of tuberculosis as a possibility in all persons who have not had recent chest examinations. Francis J. Weber, M.D., Pub. Health Rep., Oct. 1, 1948.

* * *

While it is not possible to assess the relative importance of exposure and familial susceptibility to tuberculosis, the indications are that a combination of these two factors constitute an especially unfavorable set of circumstances. David Reisner, M.D., Am. Rev. Tuberc., March, 1948.



Many instruments have been devised for the cystoscopic extraction of ureteral calculi. None have been outstanding successes, for the reason that the extractor proved too complicated or too inaccurate. The risk of ureteral rupture attends any manipulation and any method used in the extraction of a calculus. This fact should be borne in mind at all times. Rupture of the ureter with all types of extractors has been reported. Although no written reports of such an accident is available with a catheter loop, we have heard of two such instances. In selecting an instrument the safety factor is of utmost importance. Stiff but flexible extractors have a built-in fault in that the accompanying friction largely destroys the operator's sense of touch. Manipulation of a calculus by simple dilatation with ureteral splinting is safe, but results are quite uncertain.

One of the more recently developed extractors is the catheter loop. Holmes and Coplan (1936), Zeiss (1937), Finney (1941), Wehrbein (1942), Balkus (1943), and Ellik (1946) have reported their results with its use.

Instrument

To make the instrument, a pin-hole is made in the wall of a No. 5F ureteral catheter at the 5, 6, or 7 cm. marker. A length of No. 28 gage stainless steel wire, slightly over twice the length of the catheter, is used. One end of the wire is threaded through the lumen of the catheter like a



Figure 1. Case 1: (a) Film of abdomen showing calculus in lower left ureter. (b) Loop has been made 10 cm. above calculus and drawn down. (c) One pound of traction has been applied for 9 hours. The calculus and loop are about to be pulled into the bladder. A short time later the catheter came away and the calculus dropped into the bladder.



Figure 2. Case 2: (a) The spread of the loop indicates a widely dilated ureter secondary to the calculus. (b) Loop approaching calculus. (c) Calculus within loop, which is now compressed as it approaches the ureteral orifice.

stylet. The other end of the wire is doubled back on itself and passed through the pin-hole and out the proximal end of the catheter. The catheter may be made to form a loop by pulling on the wire threaded through the pin-hole. This wire may be identified by tying a knot in its end immediately after threading.

Technic

An attempt may be made to extract a calculus without regard to size or location, but it is more successful and safer when extraction is limited to the lower 8 cm. of the ureter. Obviously, to be successful, the

catheter must pass the stone, preferably without dislodging it upward. No special preparation is needed. A local anesthetic or no anesthesia is desirable as absence of pain is positive evidence of minimal trauma. Any cystoscope admitting a No. 5F catheter can be used. We prefer a No. 16 Brown-Berger or a No. 21F Braasch cystoscope. The catheter, when introduced into the ureter, is straight; after passing the stone it may be looped either in the ureter well above the calculus, or in the renal pelvis. After the loop is made, the catheter is pulled down until resistance is felt. Small



Figure 3. (a) Retrograde pyelogram. Size of calculus may be compared with the No. 5F ureteral catheter. (b) The loop met resistance at this point. Extraction was successful after 3 hours traction at 1 pound.

Results

Extraction was successful in 12 of 14 cases. Seven patients were males, and seven were females. Sodium pentothal anesthesia was used in five cases, local anesthesia in two cases, and no anesthesia in seven cases. One patient complained of mild pain when no anesthesia had been used, when the catheter was looped in the ureter. In the 12 successful cases, the calculi were extracted after a single cystoscopy in seven, and after two cystoscopies in five. The larger



Figure 4. Case 4: (a) During diodrast excretion, a loop was made in the renal pelvis (Bullet is incidental finding). (b) Loop approaching calculus in lower ureter. (c) Loop being drawn into the bladder under vision. Calculus can be seen just above loop. The dilation resulting from passage of the loop facilitated early passage of the calculus.

calculi may be extracted under vision. If large, the cystoscope is removed from the bladder. Either intermittent or constant traction employing a hand scale may be used. We prefer the latter. Two pounds of traction employing a hand scale may be severed with four pounds of traction. We have never used over one pound. A No. 50 cotton thread has a breaking strength of one and one-half pounds. Traction should always be applied using such a thread over the foot of the bed, making a "bucket" from a water glass with adhesive tape, and gradually adding sufficient water.

calculi required one pound of traction for 10 minutes in two, for 3 hours in one, for 10 hours in another, and 12 hours in another.

The irregularity of the mass created by the catheter and the calculus in the ureter allows for good drainage during traction. Three patients with grossly infected urine had no untoward symptoms. Should the ureter become blocked, the catheter may be unlooped from around the calculus by cutting the knotted wire flush with the protruding end of the catheter and making traction on the remaining wire. After unlooping,

the catheter may be left indwelling for drainage. The smallest calculus necessitating extraction was 0.2 x 0.2 cm., the largest 1.2 x 0.8 cm., and the average was 0.9 x 0.6 cm.

Two cases resulted in failure: In one case the loop slipped off a large spindle-shaped stone which became impacted, necessitating ureterolithotomy. In the other case, failure resulted because of our inability to make a complete loop with the catheter in a small intrarenal pelvis. The stone was later removed by ureterolithotomy.

Case Reports

Case 1. W. G., a white male aged 39 years. Pain in the left abdomen for three months. Intravenous urogram showed a calculus in the lower segment of the left ureter, measuring 1.2 x 0.7 cm. On first attempt at extraction the catheter would not pass. Two weeks later a catheter loop was passed easily (Fig 1) for 15 cm. and looped. After 12 hours of traction at one pound the loop came away, and the patient immediately voided the calculus with some difficulty because of its size. Narcotics were necessary during traction.

Case 2. L. S., an obese white female 53 years of age, history of diabetes of four years' duration. Preliminary study revealed a moderate asymptomatic hydronephrosis of right kidney due to an aberrant vessel, a calculus, 0.7x0.7 cm, in the lower left ureter (Fig 2), and secondary pyelonephritis on the left side. Under sodium pentothal anesthesia a catheter loop was passed 15 cm. and looped. The loop slipped off during the first attempted extraction. The catheter was re-looped and one pound of traction for ten minutes extracted the calculus within the loop.

Case 3. F. H., a white female 37 years of age whose chief complaint was vague right abdominal pain of three years' duration. Microscopic blood in urine. A retrograde pyelogram demonstrated a calculus 1.2 x 0.8 cm. in the lower right ureter, with secondary hydronephrosis. Cystoscopy was performed without anesthesia. The right ureteral orifice was normal. A No. 5F catheter met an obstruction at 2.5 cm., which was passed with moderate difficulty (Fig. 3). A catheter loop was passed for a distance of 20 cm., and the loop formed with ease. After three hours of traction, with one pound, the loop came away. The calculus remained in the bladder and was expelled two hours later. No narcotics were necessary during the period of traction.

Case 4. L. J., a white male, 53 years of age, entered the hospital with ureteral colic of seven days' duration. Urinalysis was negative. An x-ray study of the abdomen revealed a calculus 0.9x0.5 cm. in the lower left ureter. At cystoscopy, under local anesthesia and during diodrast excretion (Fig. 4), a catheter loop was passed and looped in the left renal pelvis. The empty loop was withdrawn into the bladder under vision. A second trial was not made. Four days later the calculus was found protruding from the ureteral orifice. It was grasped with the cystoscopic foreign-body forceps and removed.

Summary and Conclusions

A series of 14 cases of ureteral calculi has been presented in which a catheter loop

was employed as an extractor. There were 12 successful extractions and two failures. No complications were encountered, and the length of disability was shortened. This method of extraction has many advantages found lacking in other methods.

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DISCUSSION

DR. RUDOLPH BELL (Thomasville): The subject of cystoscopic removal of ureteral calculi is most interesting to me as most calculi of the ureter can be removed in that manner. Much patience, intelligence and care are required on the part of the surgeon, and much cooperation on the part of the patient, in order to do a successful removal of a stone. There are numerous instruments devised for removal of ureteral calculi, all of which seem at times to have some advantage over the others. Gentleness is a prerequisite in any cystoscopic manipulation. To use much traction invites danger of rupture of the ureter or breaking the tube off in the ureter. Before any stone dislodger is passed up a ureter, a complete urologic investigation should be had. A shadow noted in the region of the ureter on single x-ray film is not sufficient evidence to pass a stone dislodger up that ureter. I recently had a man that, from all evidence on a plain x-ray, had a ureteral stone and attempts had been made to extract that stone by cystoscopic means. A complete urologic investigation revealed that shadow to be calcified gland and no stone at all. The man had a cancer of the kidney.

The size of a ureteral stone plays a very minor part in its removal as compared to the condition of the ureteral wall. We see those ureters, some of the walls thick and some thin. Any attempt of forceful manipulation would rupture a ureter.

Evaluation of the kidney function should be made during the period of time the patient is under observation or at the time the removing of the stone is being done. Certainly if much damage is being noted to the kidney or infection is becoming overwhelming or the stone becomes impacted, further cystoscopic manipulations should be discontinued and open operation performed.

DR. W. F. REAVIS (Waverross): I am sorry that I was not here to have the pleasure of hearing all these papers. We were tied up in the House of Delegates meeting, so I am going to discuss only one of these papers: that is, "The Removal of Calculi from the Ureter." The other papers I did not hear and I am not capable of discussing them intelligently if I had.

So much can be said in the attempt to remove stones from the ureter. I don't know any more conservative thing that we have to do than the manipulation of ureteral stones. There are so many factors to take into consideration.

The first factor that you have always is the size of the ureter. That has already been brought out.

The next is the size and shape of the stone. Any attempt to remove a large, rough stone from a small ureter with any type of stone remover is a very dangerous and hazardous procedure. In those types of conditions it is lots better to use the multiple catheter

method. The ureter should be gradually dilated below the stone to sufficient size to allow the stone to pass without too much damage to the ureter, then attempt to pass two or more small catheters by the stone and leave for 24 hours, which gives continual dilation to the ureter and also ample drainage of the kidney. In removing these catheters, they should be well twisted, making an effort to engage the stone in the catheters. This is often a very successful way of removing stones and especially where more than one stone is lodged in the ureter.

In the use of the string catheter you have to use patience and great care, or great damage can be done to the ureter. Too much pressure may cause the stone to do great damage to the mucosa of ureter, and may result in breaking the catheter off in the ureter. If this should happen, do not become alarmed, but give 24-48 hours and usually both stone and catheter will pass down into the bladder. Then they can be removed with forceps.

It is lots better and safer to take more time in the removal of stones from the ureter than to try removal too quickly, as nothing is more serious than to produce strictures, which certainly will occur where the mucosa of the ureter is damaged very much.

When ample drainage cannot be established around stones or through catheters and severe infection develops, surgery should be resorted to before irreparable damage is done to the kidney.

DR. JAMES L. CAMPBELL, JR. (Closing): I want to thank Dr. Bell and Dr. Reavis for their discussion. It is certainly a disadvantage for the other two essayists to have a group of urologists. They were excellent papers but I don't feel qualified to discuss them.

We have been satisfied with the results of the 14 cases noted this morning. We have several more that were not completed in time for this paper.

Everyone has stressed the importance of safety in manipulation of ureteral calculi. One advantage to the loop catheter is, if the stone is grasped the catheter may be easily removed by cutting one of the wires and backing the catheter out. This is the disadvantage of the wire basket type. I think that is one of the safest factors it possesses. We have been applying tractors with No. 50 cotton thread. We have constant traction by fastening the catheter either to the foot of the bed or to a pulley and form a basket with an ordinary water glass or bottle, and adding water to it until one pound weight is evidenced. It has been necessary to caution both the patient and the hospital attendant that some move on the part of the patient makes tremendous pull on the catheter and, if the thread is used, it will break of course and relieve the tension on the ureter.

DR. OLIN S. COFER (Atlanta): The most important part of any uterine displacement operation is a correct diagnosis. In certain endocrine types, pituitary dysfunction, the uterus is retrocessed and not retroverted, or in some instances may be retroverted to a certain degree which is normal for that particular type of patient. If the ligaments are shortened in a patient of this type, it is unphysiologic, and if a pelvic examination is made a year or two later, it would usually be found in the original position, regardless of the type of operation performed.

However, in postpartum cases, and in other patients with relaxed pelvic supports, the uterus will usually be found enlarged and boggy, because of the twisting of the blood supply in the broad ligaments. It is in this type of patient who, after a pessary test and if it is possible to get the uterus in good position, a suspension operation should be performed.

In practically all of these cases the uterosacral ligaments will be greatly relaxed and must be shortened, in order to carry the cervix backward and secure the benefit of the normal intra-abdominal pressure on the fundus of the uterus. In about 25 per cent of our cases we have found that shortening of the uterosacral ligaments alone, or combined with the proper plastic

procedures from below, will correct these displacements without performing any of the various operations on the round ligaments. Practically all of these patients have been kept under observation for a period of several years and the results have been uniformly good.

Also, after the performance of vaginal or abdominal hysterectomy, it is very important to shorten the interosacral ligaments carefully in order to avoid vaginal vault prolapse, or if a supracervical hysterectomy had been performed to avoid prolapse of the cervix and the vaginal vault. We utilize this procedure after hysterectomy even in cases who apparently have no prolapse or tendency to it, in order to prevent any future vault prolapse.

It is important to identify both ureters if the interosacral ligaments are to be properly shortened, as occasionally the operation will kink the pelvic portion of the ureter on either side and result in a pyelitis or formation of a calculus.

Operations for uterine displacement has fallen into undeserved disrepute because the indications have not been properly limited to patients with pathologic findings produced by the retroversion and consequent prolap-

ORAL AUREOMYCIN THERAPY FOR CHANCRON

Report of Case

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Aureomycin, though a relatively new antibiotic, has already earned an important place in medical armamentarium. It possesses therapeutic activities against a number of infections caused by gram-positive and gram-negative micro-organisms¹. Furthermore, it shares the unique property with chloromycetin of being effective against Rickettsial diseases.^{2,3} By examining the lists of susceptible bacteria one will find that aureomycin has a therapeutic range overlapping that of streptomycin. Recently we have reported its amazing results in granuloma inguinale which, so far, was known to be resistant to penicillin and best treated with streptomycin.⁴ Because of its similarity to streptomycin and the fact that streptomycin is effective against chancre,^{5,6} aureomycin was given to the fol-

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lowing case of chancroid. The improvement seen was so definite and prompt that we thought its report worth while.

Report of Case

A white male 26 years of age came to the clinic with a complaint of having a sore on his penis and painful swellings in the groins. About two months ago the sore was said to have appeared as a "blood blister" shortly after an exposure. The blister broke the following day and a sore developed. He then applied a "salve", but no improvement was observed. One month following the onset painful swellings began to appear in his groins so that he was somewhat incapacitated and had to stop working as a mechanic. He went to see his physician who gave him a "sulfa" drug and also advised him to soak his penile lesion in boric acid solution. With this treatment his sore became less painful but the inguinal swellings continued to get worse.

Physical examination revealed a normal adult male except for some degree of weariness in his face and slight difficulty in walking. Local examination showed a shallow rounded ulcer about 2 cm. in diameter, situated on the dorsal surface of the distal third of the penis. The borders were purplish and the surrounding areas somewhat inflamed. The ulcer was covered with a dirty blood-tinged crust which was firmly adherent to the underlying surface. On lifting the crust the base of the ulcer presented a reddish velvety granulating surface with some purulent bloody discharge. The ulcer was tender and soft. In each inguinal region there was an enlarged tender non-fluctuating lymph node of about 3 x 2 cm., with acutely inflamed overlying skin.

With this clinical history and picture, chancroid was suspected. However, in order to rule out syphilis, darkfield examination and blood Kahn test were done; both were negative. Durey and Frei skin tests were performed. The Durey test was positive after 48 hours with an induration of 15 mm. and an erythema of 30 mm. in diameter and the induration persisted for more than a week. The Frei test was negative. Because the inguinal nodes were not fluctuating aspirated pus for culture was not obtainable. Our experience has shown that a culture and smear for Durey bacilli taken from an open ulcer are not reliable for specific diagnosis. However, the clinical data, the positive Durey skin test and the negative Frei and Kahn tests were sufficient to justify a diagnosis of chancroid.

Aureomycin capsules were then given orally with a daily dosage of 1 Gm. (250 mg. q.i.d.) for five days. The patient stated that the pain and soreness which had been the cause of his disability in walking left him completely the day following medication and the redness in the inguinal regions disappeared though the swellings had not decreased substantially. The penile sore was dry and no longer tender. On the third day the inguinal swellings decreased to about half of the original size and the penile lesion completely healed with shedding of the crust and epithelization. The inguinal swellings further improved and subsided by the seventh day, and no toxic reactions were observed during the entire course of treatment.

Comment

It is obvious that following a period of illness for two months, chances for this patient to spontaneously heal within such a short time as reported were very slight. Because of the immediate clinical improvement following aureomycin medication we feel that it is fair to attribute the results to

aureomycin. While it is true that the usefulness of aureomycin in chancroid cannot be evaluated in a single case, the results as seen in this patient certainly encourage further trial. With the slow action of sulfonamides in chancroid, often requiring two to three weeks to effect a cure,⁷ aureomycin may eventually prove to be a useful alternative or substitute.

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CHLOROMYCETIN IN THE THERAPY OF GRANULOMA INGUINALE

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The antibiotics have been widely used and experimented with in the treatment of the venereal diseases since the discovery in 1943¹ that penicillin was effective treatment for early syphilis. Penicillin is now the accepted form of therapy for syphilis and gonorrhea; however, it has proven to be totally ineffective *in vivo* in the treatment of granuloma inguinale². In relatively small doses in one of the absorption delaying vehicles it is beneficial in ridding the tissues of contaminating fusiform spirochetes.

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Soon after streptomycin became available, Greenblatt, Kupperman and Dienst³ found it offered the greatest hope for the cure of granuloma inguinale of any form of therapy previously employed. To date the group at the University of Georgia School of Medicine has treated 142 patients having all stages of granuloma inguinale with streptomycin, and effected complete cure in 86.6 per cent with one course of streptomycin given intramuscularly; the average effective dose being 20 grams in five days⁴. Of the 19 failures, the initial dose was definitely inadequate in six, being 10 grams or less. Fourteen who failed to obtain cure were effectively re-treated at a later date. There were only five patients in the 142 who proved to be streptomycin-resistant, a failure rate of 3.5 per cent. All of the streptomycin-resistant patients have subsequently healed under aureomycin therapy⁵. Streptomycin, while very effective in granuloma inguinale, has the disadvantage early associated with the penicillin treatment of syphilis; namely, that it requires hospitalization. Recently, Jacoby, Rosenthal and Sobel have shown that granuloma inguinale can be cured by streptomycin given once daily over a period of 7-12 days⁶.

The next antibiotic to be tried in the treatment of granuloma inguinale was aureomycin which has, as mentioned above, proved to be very efficacious⁵. Sixteen patients with granuloma inguinale have now been treated with oral aureomycin. This drug has the advantage of being administered orally and of being relatively non-toxic in small doses. However, when an attempt was made to give four grams a day, as 1000 mg. q.i.d., it was found that six patients complained of nausea and two of diarrhea. Vomiting occurred in a few cases. This is a distinct disadvantage if the drug is to be given on an outpatient basis. All

16 patients, including the five who were streptomycin-resistant, treated to date have healed. Five of these have been followed from three to four months. The average effective dose appears to be 20 grams in from five to ten days. One patient has received 70 grams without ill effect. This large dose was administered because of previous streptomycin resistance and due to the extensiveness of the disease. The patient had granulomatous lesions covering over 300 sq. cm. of surface, almost the entire external genitalia, inguinal region, perineum and perianal regions being involved. Aureomycin was first tried intramuscularly without effect, but Wright et al⁷ claim to have cured two patients with granuloma inguinale by intramuscular injection of this antibiotic.

As newer antibiotics become available their effectiveness in the treatment of granuloma inguinale is being studied. Chloromycetin is the latest of these to be tried. It has been found to be effective against rickettsial infections and certain gram-negative bacteria⁸. Smadel and Jackson⁹ have shown the virus of lymphogranuloma venereum to be more susceptible to chloromycetin than the psittacosis virus.

Chloromycetin is a pure, crystalline antibiotic which, at present, is being supplied in capsules containing 250 milligrams each to be administered orally. The arbitrary total dosage of 20 grams which we have used in the first series of patients with granuloma inguinale was chosen first, because it is comparable to the minimum effective dose of aureomycin, and second, because it has been shown that approximately this amount of the drug is necessary to cure typhoid fever¹⁰. No toxic effects attributable to the drug have been noted to date¹¹.

We have treated five patients having granuloma inguinale with chloromycetin. No toxic reactions have been observed. None of the five complained of nausea. The re-

sults have been spectacular. The following case histories illustrate the excellent response.

Report of Cases

Case 1. (C.C.) A colored male, aged 26, had had a lesion of the glans penis for two months. Donovan bodies were demonstrated in the smears. He was placed on chloromycetin therapy, 500 mg. four times daily for a total of 20 grams in ten days. There was no reaction. Donovan bodies disappeared from the lesion in 48 hours and there was complete healing at the end of treatment.

Case 2. (L.M.) This colored female, aged 62, had lesions involving the perineum and perianal region present for four years. She had previously received fuadin with little or no response. In addition, she presented a rectal stricture. The complement fixation test for lymphogranuloma venereum was positive in a dilution of 1:240, although the Frei test was negative. She received 20 grams of chloromycetin, 500 mg. four times daily for ten days. The lesion regressed rapidly and Donovan bodies disappeared within 72 hours. At completion of therapy healing was 90 per cent complete.

Case 3. (C.L.W.) This 23 year old colored female presented a large granulomatous lesion on the right cheek covering 30 sq. cm. in area in addition to lesions of similar size on the vulva and perineum which had been present for two years. The vulval lesions had previously healed under fuadin therapy, but recurred. Donovan bodies were plentiful in smears from both areas. These disappeared within 72 hours after institution of chloromycetin as 20 grams in ten days given as above. The vulval lesions were entirely healed and the large lesion on the right cheek was 80 per cent healed at time of completion of therapy.

Case 4. (F.W.) A 35-year-old colored male presented a lesion of the glans penis of only six weeks duration, in which Donovan bodies were demonstrated. He received chloromycetin as one gram four times daily for a total of 20 grams in five days. There was no reaction to therapy and the lesions were 50 per cent healed in five days. Donovan bodies could not be found in 72 hours.

Case 5. (C.L.) This 22-year-old colored woman presented lesions of the vulva of five weeks duration in which Donovan bodies were found. She was placed on therapy with chloromycetin as one gram four times daily for a total of 20 grams in five days. Donovan bodies disappeared within 72 hours and healing was 50 per cent complete in five days.

The results are summarized in Table 1.

Table 1
Chloromycetin in Granuloma Inguinale

Case	Total Dose	Results
1 500 mg.qid/10d.	20 gm.	Healed by completion of treatment
2 500 mg.qid/10d.	20 gm.	90 per cent healed at end of treatment
3 500 mg.qid/10d.	20 gm.	80 per cent healed at end of treatment
4 1 gm.qid/5d.	20 gm.	50 per cent healed on completion of therapy
5 1 gm.qid/5d.	20 gm.	50 per cent healed on completion of therapy

Conclusions

Five patients having granuloma inguinale have been treated with chloromycetin with excellent immediate results and no toxic effects. Twenty grams in five or ten days appear to be effective.

This is only a preliminary report and it will be necessary not only to follow these five patients over a long period of time, but to treat more patients with this disease and to vary the schedule in order to ascertain the minimum amount of the drug which will produce cure in the majority of cases. This drug has the advantage over streptomycin inasmuch as it can be given orally, and over aureomycin in that nausea and vomiting have not occurred.

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HEMOLYSIS IN PERNICIOUS ANEMIA

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Decatur

In view of the experimental evidence of a hemolytic factor in pernicious anemia presented by Johnson, Freeman, and Longini, the clinical observation of a case of pernicious anemia with severe hemolytic manifestations becomes of considerable interest. Admitting that the primary etiology of Addisonian pernicious anemia has been well established as a failure of erythrocyte maturation in the absence of a necessary stimulus formed from intrinsic and extrinsic factors, the clinical findings of increased

iron excretion, bilirubinemia, and elevated iron content in the liver, kidneys, and spleen suggest a hemolytic factor. Wintrobe believes that these pigments may be in excess because they cannot be utilized when red cell formation is subnormal.¹

It has been demonstrated that the erythrocytes from untreated pernicious anemia patients show actual hemolysis when placed in lipemic serum, whereas red cells from normal individuals and treated cases of pernicious anemia show only increased fragility but no hemolysis.² German workers have shown that erythrocytes from patients with pernicious anemia are more readily hemolyzed by exotoxins from their intestinal flora than normal controls.

If hemolysis is a cause of pernicious anemia, an antihemolytic effect of liver extract should be demonstrable. Davis found that dogs fed a diet of 60 Gm. of lard and 10 mg. choline chloride per kilo developed a reduction of erythrocytes and an increased icterus index. The injection of liver extract prevented the dogs from developing hemolytic anemia.⁴

Although the clinical observation of acute severe hemolytic crises in Addisonian anemia as seen in congenital and other forms of hemolytic anemia is unusual, it is suggested. Rossi in his article on dissimulating forms of pernicious anemia includes a "jaundiced" form and recommends that the diagnosis be made by blood and marrow study.⁵

A case of pernicious anemia in which rapid hemolysis was a prominent clinical feature is presented.

CASE REPORT

The patient (E. P. L.) was a 50-year-old white male who had been a patient at the Veterans' Administration Hospital, Fort Custer, Michigan, since 1934, because of paranoid schizophrenia. According to hospital records he had enjoyed robust physical health with no noticeable pallor, weakness, or other evidence of debility, until March 17, 1945, when he developed severe upper abdominal pain, nausea, vomiting and was noticed to be slightly jaundiced the following day.

Physical examination showed upper abdominal tenderness and a palpable liver, approximately 3.0 cm. below

the costal border. Laboratory studies showed a marked anemia with a red blood count of 1,430,000; hemoglobin 5.8 grams; white blood count of 3,150 with 42 per cent polymorphonuclears, 52 per cent lymphocytes, and 6 per cent monocytes. Moderate anisocytosis and poikilocytosis were evident on the blood film. Van den Berg was reported as 2.47 mg., indirect, per 100 cc. Upper gastro-intestinal roentgenograms and barium enemas were negative. He was treated by liver extract intramuscularly, iron, and a high carbohydrate diet with rapid improvement. By April 14, 1945, his red blood count was 3,540,000 with 9.8 grams of hemoglobin, and by April 28 studies revealed an erythrocyte count of 4,110,000 with hemoglobin of 12.5 grams. Subsequently all nonpsychiatric therapy was discontinued.

Under daily medical observation he remained in excellent health until December 8, 1946, when he began to complain of gaseous distention and vomited several times. The following day he appeared acutely ill and was suffering from severe upper abdominal pain.

Examination revealed a well developed and nourished white male who seemed in acute upper abdominal distress. The temperature was 101.6 F., pulse rate 110, with a normal respiratory rate. The blood pressure readings were 165 systolic and 100 diastolic. Ear, nose, and throat examinations were negative except that the tongue was noted to have smooth margins. He was thought by one observer to be slightly jaundiced. There was tenderness in his left upper quadrant without splinting or rebound tenderness and the liver edge was palpable one finger-breadth below the costal margin. There was moderate cardiac hypertrophy to the left with a regular rhythm and no murmurs, left border dullness being 13 cm., lateral to midsternal line. Bilateral 2 plus pitting pretibial edema was present. Position and vibratory sensation were intact.

Laboratory data revealed a red blood count of 2,720,000 and the hemoglobin was 12.0 grams. The white blood count was 8,450 with a differential count of 83 per cent neutrophiles and 17 per cent lymphocytes. There were 1.3 per cent reticulocytes. No anisocytosis or poikilocytosis was reported. The hematocrit was 38 (this study unfortunately was not repeated). Mean corpuscular volume was 140; mean corpuscular hemoglobin 44; and mean corpuscular hemoglobin concentration was 31. Bleeding and clotting times were within the range of normal. Sternal puncture revealed a megaloblastic bone marrow. Fragility test showed beginning hemolysis at 0.44 per cent NaCl and complete at 0.32 per cent NaCl. Prothrombin time was 20 seconds with a control of 19 seconds. Cephalin flocculation test was negative. Gastric analysis revealed no free hydrochloric acid. Urine was brownish-yellow and contained increased bile.

By the third day of his illness he was markedly jaundiced with an icterus index of 48.4 mg. per cent, and his condition seemed critical. It was believed that he was undergoing a hemolytic crisis, probably due to pernicious anemia. Liver therapy was begun with a satisfactory reticulocyte response and marked clinical improvement. Subsequent cholecystography on December 4, 1946, was negative, except for a somewhat slow filling and emptying time. Gastro-intestinal roentgenograms were normal, although suggestive of slight atrophic gastritis. Chest films were negative.

It is noteworthy that his general improvement seemed more rapid than his rise in erythrocyte count which was only 3,400,000 by December 20, 1946. He has remained on maintenance liver therapy and has been asymptomatic, except for another much less severe hemolytic episode in March, 1946, which rapidly responded to increased dosage of intramuscular liver extract.

Discussion

The rapidity of onset of this patient's

jaundice with hyperbilirubinemia and bilirubinuria, suggests the probability of a hemolytic type of episode in the absence of any evidence of hepatic or biliary tract disease, and the presence of macrocytic hyperchromic anemia, achlorhydria, megaloblastic bone marrow, reticulocyte response confirms pernicious anemia even without typical symptoms. The repeated specific response to liver extract makes some other hemolytic syndrome extremely unlikely. The rapid response of the illness to liver extract with improvement more rapid than the rise in erythrocyte count is better explained by an antihemolytic effect, as suggested by Davis, than by its stimulation of erythrocyte maturation.

Summary

1. A case of pernicious anemia with severe hemolytic type of crises responding to liver therapy has been reported.

2. While admitting that the primary cause of pernicious anemia would still seem to be a failure of erythrocyte maturation, experimental evidence suggests that hemolysis may also be a factor has been reviewed.

3. The possibility of an antihemolytic effect of liver extract has been discussed.

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HEALTHGRAM

The value of mass x-ray campaigns will be greatly enhanced if special effort is made to bring older persons into their operations. This will help to reveal the existence of many unrecognized and innocent spreaders of tubercle bacilli, and to speed protection for their families and their co-workers. Effective case finding and more adequate care of the tuberculous in our older population will give great impetus to the eradication of the disease, which even at present is an important cause of death and of disability in our country. *Statistical Bull.*, Metropolitan Life Insurance Co., November, 1948.

THE HEALTH PROBLEM IN THE SOUTH AS SEEN BY A LEADER IN ORGANIZED LABOR

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Your committee has asked me to talk on the general subject of "Medicine and the Working Man". I have been a working man as long as I can remember, and I have taken plenty of medicine. My acquaintance with doctors has been both wide and deep. I have needed them to take care of me and my own ailments, my family and their ailments. And I have also been associated for many years with members of your profession, in many ways—human, civic, political and personal.

As a matter of fact, I was raised in a family of doctors. When I say that these were great men in their profession, I give a vital clue to the attitude I have toward all of you. I have learned to respect these men, and to love them. I learned to listen to their opinions and to their problems with an understanding born of affection which has never died. That training followed me in later life—as a printer, as a newspaperman, as an editor of a leading paper for working men, and as a member for many years of the Georgia State Legislature, representing the largest and most populous county in the State.

I served my time in the Legislature as representative of the working man. Let's understand each other about that phase, "the working man". I know, for example, that you doctors here before me today are working men. But, seriously, in referring here today to the working man, let us not make the mistake of thinking only of the laborer in the large industrial centers. Let's

not think of the situation purely in terms of organized labor. I know, without even asking, that many of you here spent your early days on farms of the South, or in its smaller towns. And you know as well as I do that these rural sections are just as filled with people of moderate income, people who work, as are the larger cities in our Southeast. When you ask me to talk about the medical and surgical needs of the working man—we are talking about the rural population as well as the urban population.

It was my privilege and my pleasure, after many years of study, to be author of the bill which created a State Hospital Authority in Georgia. Today—although I did not offer for re-election in the recent primary—I am a member of the Hospital Authority of Fulton and DeKalb counties in Georgia. Those of you who are most familiar with my State know that those two counties comprise Greater Atlanta. I look upon this connection as one of my foremost and most important opportunities to serve my people and my State. My interest in health—and in its parallel phase, education—has also given me the impulse toward study and investigation to which I might not have been persuaded under other circumstances.

Medical men know the facts of life; that's their business. So I know you didn't ask me here to handle any situation with artificial kid gloves. I am assuming that you want me to talk frankly, and that is what I shall do.

In my own State—and in other states where I have confirmed my findings by detailed and careful research—these two facts seem to stand out:

First, good medical attention can be obtained by patients who can afford no medical or hospital bills at all. That is, there are reasonably adequate provisions made for charity patients. In other words, if you have nothing at all—some provision is

made for you.

Second, if you have plenty of money—you can buy all the expert service and assistance which your health requires.

Between these two—between the poverty-stricken and the wealthy—there is a tremendous gap of uncertainty and danger. And it is in this great gorge between poverty and wealth that most working men fall—in the rural sections as well as in the cities. They are not poor enough, and in many cases they have too much pride, to accept charity treatment. And they are not rich enough to buy the medical and surgical attention they need. That, to me, is the problem which confronts the people of this country today. And it is also the problem which confronts you, you men of the medical profession.

There has been a popular tendency in the past few years to look upon organized labor as being radical in its tendencies. Misguided minds have looked upon organized labor as being "leftish" in its attitude toward public affairs. That is far from the truth. Organized labor knows better than any other group in all of America that its own prosperity depends upon the prosperity and the welfare of management and capital. We stand or fall together.

You may wonder why I am wandering off on this sidetrack. It is not a sidetrack, but it is a necessary introduction to my next remarks on the subject which has been assigned to me.

In a group such as this, I ordinarily would be timid about mentioning such a subject as socialized medicine. I know you don't like the sound of the term—and neither do I. It has leftist implications which you detest and which I detest.

Talk of socialized medicine has been generated in some quarters purely because of its political phases. But it has found a following because there are so many people who do not know which way to turn. It has

been held up to them as a panacea—as a solution for every obvious ill.

And *you*—and only *you*—are the people who can do something about stopping this dangerous trend.

Simple discussion like this won't do it; conferences and opinions will not do it. It is going to take action—action in which the medical profession must take a firm stand and an aggressive lead.

I can't tell you how to do it—I can only say, as a friend and as an interested neighbor, that it must be done. Unless better medical care is afforded for more people, socialized medicine is a political snow-ball which will roll and gain momentum of its own accord.

Most of what I know about the situation is gained from first-hand observation. I know that there are literally thousands of men, women and children in my own State and throughout the South who can never depend upon proper medical care or hospitalization. I know also, because I have seen it demonstrated, that small, well-equipped and well-manned hospitals can provide the answer to this problem in several counties at once. And I also know—a fact with which I am sure you will agree—that hospitalization is an absolute essential to proper medical care. Even the general practitioners prefer hospital atmosphere when it is available.

With more adequate hospitalization in the background—or rather, as a foundation—the crying need, as you will undoubtedly admit, seems to be more general practitioners, especially in the rural areas. I know full well that you are trying to do something about this, and I hope you will continue your valiant efforts in spite of the great present curve toward more and more specialization.

You are probably just as puzzled as I am about how many doctors there should

be to any given population. You have heard and I have heard figures ranging from one doctor to every 700 of the population to one doctor for every 1,500 of the population as being capable of giving adequate medical care. I understand, through a recent article I have read, that the American Medical Association itself has estimated that the rural areas alone need from 5,000 to 10,000 more doctors. North Carolina, as an instance, says it needs 1,200 more. The assumption is that they are talking about general practitioners. Personally, I like the old term "family doctor" a whole lot better. And that need, as estimated for the rural areas, must also be extended into the industrial and commercial centers, because a baby or a woman can get just as sick in a four-story tenement house as they can in a two-room shack somewhere out in the country. And no mortal man can ever estimate the value of a city soul saved as compared to a soul saved in the rural sections. It is an overall proposition, one that concerns us all, no matter where we live and have our being.

Past experience has proved that these improvements may be made without any special taxation. A sales tax, for example, would mean nothing less than additional burdens on the very people who we are trying to assist. Provision for this care simply would mean a better distribution of the revenues which our Southern states already enjoy — incidentally, in ever-increasing amounts during recent years.

Consummation of this great benefit to the people is going to take hard work. Most of all, it will require intensive education—and education is certainly a factor in our life which I don't have to argue with doctors about. Your whole life is a continuing process of education; you know its value; you know its influence.

In fact, you men are right in the middle of what I consider the two most important phases of *all* our national life—health and

education. The problem confronting the working man in search of medical care is a tight combination of the two. No better group in the world could be chosen for its leadership than you men and the unselfish and constructive interests which you really represent, deep down in your hearts.

I am deeply grateful to the Medical Association of Georgia for suggesting that I make this appearance before you. I have tried to speak simply and frankly. I have offered no world-beating solution, because I am not capable of providing it.

What I have tried to do is this and nothing more: To call your attention to the need which exists in perhaps other language than you have heard before—to say that you are the only people who can solve it—and to assure you, insofar as I can, that you have the friendship and the respect of working men throughout the South who will back you in every constructive effort you may bring forth.

Gentlemen, I thank you—and offer you all the assistance I may be able to give you.

SHOULD WE ADOPT COMPULSORY MEDICAL CARE INSURANCE?¹

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Proposals for extension of our present social insurance system to medical care insurance have been the subject of much debate in recent years. Considerable confusion still remains, however, despite all the discussion that has taken place, and even some of the most fundamental questions remain unanswered.

There is still disagreement (a) as to the need for compulsion in the field of health services for the individual, (b) as to what aspects, if any, of health service plans should be sponsored by government and at what level—Federal, state, or local, (c) as to how the administration of plans should be allocated among the various levels of government, and (d) as to whether the role of a government agency should be to pay benefits, to render service, or to assist individuals in creating organizations for themselves.

The questions posed are not simply the *pros* and *cons* of broadening our social insurance system to include medical care insurance. Neither social insurance, as we now know it, nor the situation that medical care insurance seeks to meet, is in any sense static. A number of signs indicate that, irrespective of our decision as to any such broadening, the next few years will see major developments in the health service field. The chief needs would seem to be (a) to determine and clarify the significant issues, with a clearing away of irrelevancies, (b) to develop further the many types of attack on health problems, and (c) to make a careful appraisal of results.

One of the chief obstacles is a tendency to oversimplify the issues involved—a tendency to think in terms of catch phrases, to substitute epithets for thoughts, to feel that one needs only to take position for or against a particular bill. It is nothing new that discussions in this field tend to be highly partisan, more often heated than temperate, more controversial than philosophic. Alternatives are presented as involving mutually exclusive choices—such as compulsion vs. voluntary action, over-all planning vs. individual initiative, Federal vs. state or local control, or cash benefits vs. service benefits. But the choices are by no means so simple or clear-cut.

Compulsion vs. Voluntary Action

Either compulsion or voluntary action can involve us in absurdity if pushed to extremes. While a degree of compulsion in the medical care field, as in other fields, may at times be desirable to conserve the real freedom of the majority—quarantine in case of smallpox, for example—compulsion should be so limited as to avoid undermining our traditional democracy, the keystone of which is individual responsibility for one's own welfare. Legal compulsion leaves no room for the legitimate exercise of strong-mindedness or even obstinacy—a crippling loss for an individualistic society. But freedom of action must be guided by a measure of restraint. Otherwise it degenerates into license, and so defeats its own end.

In our increasingly complex society both over-all planning and individual initiative have a role to play for the best kind of progress. Government activities of the right sort in the field of health services can clear the ground for individual effort. Government and private enterprise need the stimulus of each other to bring out their full potentialities, and to prevent totalitarianism on the one hand or anarchism on the other.

But the individual has a basic responsibility for his own health; there must be full scope for the exercise of this responsibility. Individual interest—lay and professional—must be encouraged to the utmost. Yet, the ordinary citizen must have protection against ill-conceived plans which

¹Adapted from a recent address before the President's Section, National Fraternal Congress of America.

would do more harm than good, and against the charlatans who appear if no steps are taken to restrain them. Government must therefore make rules and prescribe safeguards to minimize the chances of failure.

Whether, in what circumstances, and to what extent government should attempt more than the role of an umpire is a more difficult problem, involving broad considerations of national policy. Issues in this field should be faced fairly and squarely, so that whatever steps are taken are illuminated by the full light of popular discussion and understanding. Important measures should not be "put over" by indirect approaches, political maneuvers, or flanking attacks.

In this country we have long had a measure of government activity in the field of health services. Much of what is now being done is generally accepted as a proper function of government. Hence, while the question too often debated appears to be whether the government should enter the field of health services, that is not the real issue. The question we should be studying is: In what health service areas should the government extend its activities, and in what areas should it discontinue or curtail present activities?

The evolutionary growth of government activity has been accompanied by growing voluntary action in developing new methods in medical economics. Both types of activity may be conceived as filling a vacuum created by the growing complexity and costs of modern medical care, a vacuum consisting of two needs: The need for the utmost economy and effectiveness in the distribution of services, and the need for methods of financing under which cost considerations will not operate as a barrier to needed service.

Recent years have seen great improvements in scientific knowledge and in facilities for health services. This in turn has led to re-examination of traditional methods of furnishing and financing medical care. As a result, experimentation in new methods has been greatly intensified, and recent progress has been greater than most of us would have dared forecast a few years ago.

The current situation is like a race between those who hold that only compulsory action, preferably by the Federal government, can adequately meet present needs, and those who maintain that expansion and improvement of voluntary methods is a much sounder approach—that increased compulsion would actually result in a decline in the quality of medical care. This state of affairs is deplorable as there are many questions needing calm, unbiased study if we are to continue to improve our methods of furnishing and financing medical care.

Problems of Medical Care Insurance

These questions arise partly because of a fundamental difference between medical care insurance and other types of social insurance. In programs paying cash benefits the government's

tasks are to set up eligibility requirements, to pay the benefits, and to raise the funds to meet their cost. No attempt is made to overrule the individual's judgment as to what he deems the necessities of life, to tell him how to spend his benefit dollar, or to provide necessities in kind.

But for medical care the problem is entirely different. Here it is not a case of paying cash amounts, but of having proper medical care available to an individual when he needs it. But who determines whether the individual needs care? If so, how much care? What kind? Who will make it available? How?

The answers will be quite different if there is no cost to the individual for the care he receives than if he is required to pay for treatment. Moreover, the answers will depend on the method of compensating the person rendering the service.

One method of paying the doctor is the traditional fee-for-service basis. Here it should be obvious that the volume of service—whether needed or not—rendered a given patient may vary greatly depending upon whether the patient or someone else pays the bill. Under this method the practitioner's total income is determined by the volume of service rendered, and not by the number of individuals served.

Another method is the capitation basis, used in the British health insurance system, under which the doctor receives a fixed monthly payment for each person on his list. His income on account of a particular insured person is the same whether the insured receives no services whatever or whether extensive service is rendered. Under this method the practitioner's total income is based on the number of insured persons on his panel, rather than on the volume of service furnished.

The third method is the fixed-salary basis; here the amount of the salary may be determined in a variety of ways.

While one may find persuasive arguments for and against each method of payment, there has been a distressing lack of public discussion regarding them. As yet, there has been no proposal for the application of any of these methods to a government plan which includes adequate safeguards to assure a wider distribution of proper medical care on an efficient basis.

Another series of questions arises out of insistence that any plan should include free choice of doctor by patient and of patient by doctor. The statements of some advocates of government plans may readily lead us to assume that no difficulties will be encountered in retaining these freedoms. But here again we are faced with complexities in attempting to develop a workable and sound arrangement.

Related to the foregoing questions is another of importance: Should medical care on the traditional private basis be permitted to continue if a government plan is in operation?

At first glance one may think that these prob-

lems of how the doctor should be compensated, of freedom of choice, and of the status of private practice, are more or less administrative details. Quite the opposite, however, is the case. They are to a large extent the crux of the question of whether a government plan can successfully attain its objectives. Ample evidence of this statement may be found in the recent negotiations between Britain's doctors and the British officials, and in the reports which have appeared in this country concerning New Zealand's experiences.

The way these issues are resolved will largely determine how much regimentation of patients, physicians, and institutions will result, how much red tape and administrative expense there will be, and what the plan will cost. Even more important, the solutions reached will have considerable influence on the quality of the medical care which will be available. The complexities of these problems may be well summed up in the statement: "Sickness and the vagaries of human nature refuse to be neatly pigeonholed."

Some reference should be made here to another important problem of compulsory medical insurance: Can the concept of basic protection through social insurance, with supplementary protection available on a voluntary basis—a concept now widely accepted as appropriate in regard to old-age and survivors insurance—be applied to the field of medical care?

Medical care for the individual needing it should be continuous and uninterrupted, with the facilities for providing it closely integrated. "Supplementary protection," carrying on from where the compulsory provisions leave off, would often complicate matters and unnecessarily harass the patient by subjecting him to a switch from one system to another, perhaps just at the very time he most needs continuity of treatment. What the effect would be on the quality and effectiveness of medical care is a question for a physician to answer, but there is good reason for thinking that the answer would not be favorable. When a physician knows that his primary responsibility for a case is limited in time or extent, or shared with other physicians, should we expect his sense of responsibility, of independence, and of initiative in the case, or his personal relationship to the patient, to be keyed to as high a pitch as it otherwise might?

Space limitations do not permit comment on such questions as group practice and health centers, which should be considered in a comprehensive review of the subject. Perhaps, though, enough has been said to make it clear that in the field of government health services there is still much unexplored country to be charted, despite all the past discussions. Blindly following the precedents of our established social insurance plans, or of foreign systems, is certainly not the answer.

Need to Avoid Ill-Considered Action

The preceding comments probably evidence a

lack of sympathy for at least some of the medical insurance proposals introduced in Congress and in some state legislatures. Efforts have been made to advance such bills by introducing an atmosphere of extreme urgency. While the importance of health problems must never be forgotten, there is the gravest kind of danger in dealing with them in such an atmosphere.

There are always those who feel that the present situation is so bad that anything will be an improvement, and who would hasten to make some change, however ill-conceived. Yet one does not have to condone the deficiencies of our present order to point out that irreparable damage can follow from ill-considered tampering with the complexly interrelated agencies that now operate in the medical care field, and which, if fairly appraised, have to be credited with doing a remarkably good job.

Proponents of particular bills often counter criticism of their proposals with a challenge to make a constructive counter-proposal. The author must confess that he for one is not sufficiently ingenious to devise a compulsory medical care insurance plan to accomplish all of the following:

1. Adequate medical care and facilities for all.
2. Free choice of doctor and patient.
3. Simple, decentralized administration with maximum local autonomy.
4. Method of compensation determined by those rendering the service.
5. Cost to the insured independent of the services he may receive.
6. Quality of medical care maintained and improved.
7. Total cost reasonable in comparison with amounts now spent.

Perhaps the reason for this apparent inability to make a constructive counter-proposal is that it is not possible to devise a compulsory plan meeting all these specifications. Perhaps the most promising road to follow is the same one which has resulted in the development of a wide variety of plans and in the amazing progress of recent years. Often we center so much attention on our present status and on possible means of improving it that we overlook these remarkable developments.

Success of Voluntary Efforts

The substantial growth of voluntary health insurance plans, particularly against the costs of hospital care, surgery, and physicians' fees, is of comparatively recent origin, and within a comparatively few years tremendous gains have been registered. Protection against hospital expense was practically unknown 20 years ago; it is now provided for over 52 million individuals. The successful introduction of hospital expense insurance was followed by coverage for the cost

of surgeons' fees, now afforded over 26 million individuals. Moreover, the last several years have seen considerable experimentation with insurance for various forms of non-surgical medical care by physicians, and already about nine million persons have this type of coverage.

All three coverages are still youngsters in the insurance field and continue to grow rapidly. Reference should also be made to the protection now in force against wage loss due to accidents and sickness. The latest estimates indicate that over 31 million wage-earners have some form of protection of this kind under a variety of arrangements such as group and individual insurance policies, mutual benefit association plans, sick-leave pay plans, and union plans. This volume of protection is striking, especially when viewed against the fact that the total employed population is about 60 million.

Recent studies have enabled those of us closest to the subject to get a quantitative view for the first time of the scope of voluntary effort. Much remains to be done in acquainting the public, particularly legislators and health workers, with the fine progress made. Much also remains to be done in appraising the effectiveness of these voluntary efforts, discovering the areas in which further growth may best occur, and generally in discovering how such efforts can be made more effective.

Also striking have been the developments of recent years in other health areas. The startling progress—as reflected, for example, by improved mortality figures—underlines the view that the government, the medical profession, companies, organizations, and individuals interested in health should continue as in the past to experiment freely.

By this process we may arrive at a place 20 years from now far ahead of where we would be if we committed ourselves to some uniform plan. The latter course of action, even if it succeeded at first in raising present levels of availability, perhaps even of quality, in the medical field might thereafter be more likely to keep us frozen in a *status quo* than would otherwise be the case.

Conclusion

There are impressive reasons—both *a priori* and experimental—for believing that in the field of health services a uniform compulsory scheme is irreconcilable with our basic concepts of freedom and democracy. It seems beyond our present powers to devise any generally applicable scheme that can meet the requirements necessary to preserve these basic values. Thus, a more ardent pursuit of those paths that have made for progress during the last few decades would seem to be our most promising course.

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THE BRITISH STORY — FIRST HAND

Address by Miss Elizabeth Wilson before the First National Conference, National Education Campaign, American Medical Association, February 12, 1949.

I am here to tell you how the socialization of medicine has affected the conditions of practice, the income, and the peace of mind of your British colleagues. My report will be based not only on my personal observations during the first two months the National Health Service was in operation, but also on letters and newspaper articles I have received since then.

Some general practitioners have found little change in the number of patients they are required to see every day. Others have found that their work has doubled, even trebled. Doctors told me of seeing 40 to 75 patients in the four hours of office practice. Just before I left England, the first of September, this paper came out. (*News of the World*—August 29). It is the largest English Sunday newspaper. It told of one doctor who frequently saw 120 patients in this office time. Is two-minute medicine good medicine? Would you enjoy having a really sick patient standing in a queue that extended from your house, through your house and garden and into the street, where the police have to keep order? That has happened in England.

Of course, not all of those who go to see the doctor are ill! This newspaper has big headlines "Health Service Hit by Humbugs!" Another report in the *Daily Telegraph* told of a doctor who complained that for the first time in fifteen years of practice he was called upon to see people for wasp stings and insect bites. People do this to get free medication. Under such conditions, it seems probable that the British actuaries were not far wrong when they estimated that the average patient would see his doctor eight times a year.

The average panel is slightly over 2000 patients, the maximum twice that. Usually the British doctor works 300 full days a year. By simple arithmetic you can see that the physician with 2000 patients on his list would have to see more than 50 patients a day, every day, or considering seasonal variations in demand, perhaps 30 in summer and 70 in winter. No wonder responsible people have been afraid that the doctors, many of whom got no vacation last summer, will find that they are overstrained when the winter epidemics hit them!

Another element contributing to the over-worked condition of the doctors is the great amount of record keeping. When the scheme first went into operation, the doctors asked their patients for help. Now that many estimate that the paper work has been increased by one-third, it is even more of a burden. One reason for this is Regulation No. 507, which Mr. Bevan issued. (Mr. Bevan just loves to issue regulations! Last summer he was issuing about eight a day! Many

doctors say it is absolutely impossible for them to keep up with the number of regulations!) This Regulation No. 507 required that the record keeping should be in the form designated by the local executive council. You will see over on that chart, the local executive council is the one that has surveillance over all the doctors and dentists. It is down toward the bottom of the chart there. This Regulation No. 507 also requires that the doctors' records should be available to two committees, each of which is predominantly lay. The doctors protested very vociferously against this, saying it was in contravention to the Hippocratic oath, but the requirement is still in force!

You naturally will know a great deal more than I how it will affect the quality of practice, but I have heard many British physicians say that because of it they have been unable to get absolutely complete information.

It is of passing interest to notice that in the prospectus which was issued by the government before this system went into operation, patients were promised that their dealings would remain "personal and confidential." That sounds very much like Section 254 of S. 5 in our own Congress.

Again, practitioners were fearful that under this new system they would become traffic directors, sending patients to specialists. In fact, many of them have during the past couple of years undertaken postgraduate work with the expectation of specialization. Thus far many of them have not qualified and there are only 5000 full-fledged specialists to take care of 48 million people. It is not surprising, then, that an American neurosurgeon who was doing work in England last summer found that the shortage of consultants was so great that *a patient with a presumed brain tumor had to wait four months to enter a hospital*.

Doctor Swett declares, "Numbers die before they reach the top of the list."

This observation about the delay in getting service was confirmed time and time again by other tales I heard, but the present situation seems to be an aggravation of the very serious conditions that existed before July 5, when the service went into operation.

One reason why many general practitioners send their patients to the hospitals is because they want to get access to laboratory facilities and x-ray tests which are not available under other conditions. Hospitals have a virtual monopoly of such facilities and have barely enough for their own use. One reason this shortage has been aggravated under the new system is because the government will not pay a doctor for such service unless he has a special diploma and has an honorary position on the staff in a hospital. Such refusal oftentimes involves great delay and also may require the patient to take a long

journey.

The small number of qualified specialists and the shortage of laboratory facilities are two out of the four reasons for the crowded hospitals.

The third reason is the shortage of nurses. Mr. Bevan has estimated that they need 50,000 more nurses in England. There are whole wings of hospitals that are closed because there are no nurses to staff them, although there are waiting lists five or six times as long as the number of available beds. Of course, many new hospitals are needed.

This, then, is the setting in which more than 90 per cent of the British people are receiving medical care and attention.

Last summer I asked all types of people in many parts of England what would happen to the quality of care. Their unanimous verdict was that it would be poorer. Those in the industrial classes were delighted by the fact that they were going to get all the care they wanted, but they admitted that "panel practice has always been poor."

This forecast has been borne out by two letters I have received from the British specialists in the past months. The young one writes: "*We think less and less of the service. The work being turned out at a standard rate is poor and there is little encouragement to real craftsmanship.*" An eminent specialist in his prime, one whose name you would all know, says: "*A very large body of opinion in this country is satisfied that a state medical service . . . will, by destroying the freedom of the public and the freedom of the profession, only end by lowering all standards.* To many of us it would appear that once such a comprehensive scheme is in being, the real professional standards must cease to be the real criteria."

How would you like such a prospect as that?

Certainly in that kind of a situation there is little incentive to good research. The government probably did not expect much research, because in the budget for the first nine months only 35,000 pounds, or \$140,000, were appropriated for it. That should be compared with the millions of dollars which were used to provide for such work before the Minister took over the endowment of the non-teaching hospitals.

Probably the experience of Dr. Swett will be re-enacted again and again. He applied to Whitehall for certain types of new kinds of instruments to try out a new kind of operation. His request was acknowledged and then he waited a very long time. Finally he got word from some government official declining the request on the grounds that such things were not a part of the usual neurosurgical set-up. One wonders if the medical world will ever salaam again to a Fleming or a Whitby!

If the doctors could foresee these conditions—and many practitioners had a foretaste of them under the National Health Insurance—why did

they join? They had to. It was as simple as that! A year ago at this time it looked as if they would not. In the February plebiscite at that time almost 90 per cent of the British physicians said that they would not participate in the service. There were a number of reasons why the medical profession did not like the Act, but the main one was that the doctors objected to being turned into civil servants. In England it was customary for a young doctor to buy his practice. The Bevan Act provided that the government would buy the practices from the doctors, provided they joined before the service began. Furthermore, although the Act did not specify how the doctors were to be paid—that was left to Ministerial regulation, too—the Minister had said that he had come to an “ingenious compromise” in his White Paper. It was that the doctors would be paid partly by capitation and partly by a fixed annual sum. The doctors objected to the basic salary arrangement. They feared it presaged a complete salaried service. After the February plebiscite, Mr. Bevan promised to bring in an amending act whereby no Minister could put them on a complete salary without another act of Parliament. With the present large labor majority, that was more or less of an empty gesture, because he could bring in the bill any time and he could get it passed. But about half the doctors took it as a token of good faith and said they would be willing to collaborate with the government.

The B. M. A. realized that the system could be put into operation without half the doctors and so withdrew its objections. In other words, because the doctors did not stand together, the system could go into effect. If the doctors had stood together, it could never have been put into operation.

About 18,500 out of the 21,000 general practitioners went into the service before it began. They wanted to get paid for their services, out of the 66 million pounds which was set aside for that purpose. Moreover, 17,000 of them had panel patients and were getting on the average of one-third of their income from this practice. This would be forfeited if they did not join. Also it seemed fairly certain that there would not be enough private patients for many practitioners to earn a good living outside the service. Very few people felt that they could pay the tax for the medicine and then pay a practitioner separately. As one doctor said, “*after the service gets going, it's either collaboration or starvation.*”

What has happened in the first six months? The amending act has not been brought in. The general practitioners were promised 18 shillings per annum per patient. Sir Ernest Graham Sittle reports that they have been paid only 16 shillings. Presumably the rest will come along later, but there is no guarantee of it.

All of you probably have heard how the Minister arbitrarily cut the fees of the most popular

dentists. Of course, the whole 18 shillings is not to be paid in cash. Part of it is deducted for the superannuation fund. Part of it goes to the mileage fund to help give something extra to the rural practitioners. The cash payment would be about \$3.50 per person, per year. *That would mean less, on the average, than 50 cents per attendance, which would net about 30 cents.* This net income is also to be subject to the income tax, and the standard rate is 45 per cent.

What has this done to the total income of a family doctor? Some of the poorer areas are delighted. They are getting more than they have gotten in their lives. Others, in more prosperous communities, where the doctor was accustomed to give more adequate attention to their patients, are finding life pretty grim. For instance, in the over-doctored areas such as Torquay and Bournemouth, doctors who used to have an income of 4000 pounds are making barely 1200 pounds, and it is hard to meet their commitments.

Probably the rural practitioners are the worst off, for the number of panel patients is definitely limited. Of course, they get an extra mileage allowance, but the money that was set aside for this purpose has proved woefully inadequate and will have to be increased by at least 50 per cent another year.

The specialists are in a very different, but in a sense just as precarious position. The Minister took over about 95 per cent of all hospitals beds on July 5. Most of the specialists felt that they had to collaborate in order to get the use of the hospital facilities. Of course, about 10 per cent of the beds were available to private patients but only to those whose doctors were in the service. Specialists had been given a flat rate, maximum amount of \$10,000, except for the young specialists who get \$6,000 up. This maximum may be earned by doing a certain minimum amount of work—so many sessions at the hospital, so many patients, and so on. One-third are to be given an extra bonus ranging from \$2,000 to \$10,000. Last summer there was much apprehension as to how the lucky one in three would be selected. The matter was entirely within the authority of the Minister. I understand now, from Dr. Dain, that a competent Award Committee has been appointed, but there is no guarantee that later this committee will not be superseded by one of politicians.

From 1913 to 1948 there was a constant struggle between the government and panel doctors as to the scale of remuneration. In the present set-up the Minister has a very much more important power because he has a virtual monopoly of demand. Despite the Whitley Council, it will be he who will have the final word as to how much the physicians will get and he will be working in close conjunction with the Treasurer. Doctors know this and are fearful.

But even more disturbing to the medical profession is the fact that the civil rights of its mem-

bers are in danger. *Mr. Ernest Brown, a former Minister of Health, said that it was necessary to control—note the word “control”—the doctors in order to make the social security plan work. The present Lord Chancellor said the same thing in other words during the third reading of the National Health Service Bill in the House of Lords.* The original bill made it possible for the government to tell a doctor where he could practice. One of the few concessions made to the B. M. A. was that the Minister could not direct a young doctor to a given area but that a committee should be appointed to prevent the young physician from practicing in an over-doctored area. The only appeal from the decision of the committee is to the Minister. Would you enjoy such negative direction? It would mean that there would be no guarantee that your son could inherit your practice.

Worse yet is the governmentally appointed tribunal. Notice the tribunal on there (chart) and also the tribunal on the Wagner-Murray-Dingell Bill. The Minister has defined the word “naughty” as not in terms of malpractice but on the basis of whether the culprit were an “adequate” civil servant. This tribunal must act if a doctor is reported by the Local Executive Council. The Local Executive Council is comparable to the Local Administrative Committee under the W-M-D Bill. The tribunal may also act if a practitioner is reported by anyone else in the Kingdom. Now *this tribunal does not base its decisions on legal rights and liabilities, but on policies and expediency. It is under no compulsion to give a reason for its decisions, although it has the power to dismiss a man from the service, an act which the Minister has admitted is equivalent to condemning him to professional death.* The only appeal is to the Minister of Health himself. Do you wonder that doctor after doctor told me last summer, “I’ll tell you but don’t quote me”?

It might be of interest to you to tell your professional friends that a socialist member of Parliament has said that the government intends to take over the control of the medical profession first, because it is by far the most important profession and has the most power over the people. *After this it will be easy to enslave the other professions, one after another.* The British realize this; an old doctor said to me, “Miss Wilson, when you get back to America, paint our picture.” I said, “How shall I paint it?” He said, “Paint a lot of little creeping things in the foreground and over all put a great, big giant.” And I said, “What shall I call that gaint?” He said, “Call it the Fear-of-What-Is-to-Come.”

I have told that story to many Britishers and their invariable response has been “How very apt! How very true!” They were not referring to the international situation nor to their own shortages, but to the growing power of the government planners who, like fire, and the graves

never say “It is enough”.

Recently I was talking to a foreign student who said that the thing that impressed her the most about America was the way we were so careless of our liberty. Oh, I don’t want to see that fear come to America! Especially, I don’t want it to come to the medical profession of America, because my father was one of you. You are about to be engulfed. May you be Joshuas and turn back the tide! By so doing, you will make our country healthier, more prosperous, and keep us really free.

VARICOSE VEINS

Varicose veins occur in all ages, sexes and races, but more frequently in middle life. The word varicose stems from the Latin word “varix,” meaning dilated vein. Varicose veins are those whose walls lose their firmness and bulge out in irregular lumps that may be seen through the skin, the Educational Committee of the Illinois State Medical Society points out in a *Health Talk*.

The condition is likely to occur in any portion of the body, but the common site is the legs. Here the superficial veins, lying between skin and muscles, are most often affected. Deeper veins, supported by muscles, are seldom seriously affected.

Arteries carry the blood from the heart to the tissues where the veins pick it up to return it to the heart. The veins, with their network of valves and chambers, work to keep the blood flowing in one direction only—to the heart. If the veins fail for any reason, the blood does not move to the heart but accumulates in smaller veins. The tissue, instead of receiving proper nourishment, gradually deteriorates.

The cause or causes of varicose veins are not definitely known, although it has been established that heredity is a factor. The condition is frequently associated with pregnancy and with occupations requiring persons to stand for long periods, and, in fact, any condition that places undue pressure on the vessels of the legs, such as tight garters, may contribute to formation of varicose veins.

When developed, many things are apt to happen—discoloration of the lower limbs, eczemas of the skin and eventually ulcers. If inflammation occurs, serious illness may result. Even a slight bruise, which ordinarily might cause no discomfort, may develop into a varicose ulcer which, if not properly treated, may enlarge and involve all the layers of the leg structures, even to the bone.

In the treatment of varicose veins, the first essential step is a complete physical examination by a competent physician. This will establish or eliminate factors causing mechanical obstruction, such as pelvic tumor, chronic cough, even tight garters or girdles. Chronic pelvic inflammation, if present, must be cleared up.

Many persons have one or more conspicuous veins which are not varicose, but those who have many or badly swollen veins, tired and aching legs should see a physician. The complaint of tired legs is often associated with varicose veins, although other conditions, such as flatfoot, heart, kidney, bone, artery or nerve diseases, are also identified with this symptom.

Technics used in caring for varicose veins include bandaging, the wearing of elastic stockings, injections or surgery. The use of any one of these procedures, however, is dependent on the severity of the condition in the individual case, a decision that rests with the physician.

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MODERN ANESTHESIA

Anesthesia has developed in only a few more than a hundred years from a procedure whereby surgery was performed with the assistance of a quart of whiskey and four strong men to hold the patient, to the art and science of anesthesiology as it exists today.

No longer is the administration of the anesthetic by the trained anesthesiologist limited to ether or chloroform. Today he has at his disposal a number of agents and technics from which he may choose. He may accomplish anesthesia or analgesia by inhalation, intravenous injection, spinal injection, intramuscular injection, rectal administration, refrigeration, or a combination of two or more of these. Each agent and technic has its advantages under certain circumstances and for certain purposes. By combining agents and technics the anesthesiologist is often able to secure the advantage of each.

Today's anesthesiologist, a doctor of medicine who has specialized in the physiology of the respiratory, circulatory, and nervous systems of the body and the pharmacology of anesthetic drugs, is concerned with three factors; namely, the safety of the patient, the success of the surgery, and the comfort of the patient—in that order.

The anesthesiologist, as a doctor of medicine, is able to and does assess the physical condition of the patient prior to the operation and selects those agents and the methods that are safest under those conditions and that are compatible with the surgery that is to be performed. It may be that the patient has a heart or other condition that must receive special consideration. The anesthesiologist is aware of these facts before the operation begins, and chooses the anesthetic agent and the method that will be safest. But the concern of the anesthesiologist for the safety of the patient does not end there. Throughout the operation he watches and records the pulse, blood pressure, respiration, and other physical signs that are indicative of the patient's condition. He is especially watchful of the patient's breathing and is ready to clear any obstruction that may interfere with it. Because the anesthesiologist is constantly aware of the patient's condition, supportive therapy is within his province. If the patient needs blood, dextrose, saline solution, or other fluids, the anesthesiologist is the first to recognize this fact and is prepared to administer the proper supportive therapy immediately.

Next, the anesthesiologist considers the type

of surgery that is to be done, the portion of the patient's body that will be affected, types of apparatus the surgeon will use, and other special needs of the surgeon to perform his work most easily, quickly, efficiently, conveniently and safely. The surgeon and the anesthesiologist form an operating room team, each supplementing the other in making the whole operative procedure (anesthesia and surgery) as effective and successful as modern medical science permits.

Finally, the anesthesiologist considers the comfort of the patient. Before he is even taken to the operating room, drugs are administered to allay his apprehensions and fears. The first two considerations permitting, the type of anesthetic chosen is the one which allows the patient to undergo the surgery without pain, and with a minimum of complication or discomfort after the operation.

Thus, recent advances in medical science have made accomplishments by the surgical team possible, with a minimum of discomfort and disability on the part of the patient, which were inconceivable but a few years ago.

**A.M.A. COMMENTS ON TRUMAN
HEALTH PROPOSAL**

"Adoption of a system of politically-controlled medical practice, as recommended by President Truman, would turn back the clock of medical progress in this country 50 years!"

The American Medical Association so charged April 24 in a statement by Dr. Elmer L. Henderson, chairman of its Board of Trustees, and added:

"The inevitable deterioration in the quality of care which would result from government-herding of patients and doctors into assembly-line medical mills would lower the standards of healthy America to those of sick, regimented Europe."

Dr. Henderson's statement follows:

"President Truman's special message, asking enactment of a National Compulsory Health Insurance Program, deserves most careful scrutiny both by Congress and by the American people, whose health would be seriously endangered if this Old World scourge is allowed to spread to our New World.

"There is neither hope nor promise of progress in this system of regimented medical care. It is the discredited system of decadent nations which are now living off the bounty of the American people—and if adopted here, it would not only jeopardize the health of our people, but would gravely endanger our freedom. It is one of the final, irrevocable steps toward State Socialism—and every American should be alerted to the danger.

"One of the great dangers in political diagnosis of the health needs of the people is the temptation to over-simplification. President Truman has fallen into this error.

"The President sets forth an objective which all of us can warmly endorse—namely, bringing adequate health services within the reach of all the people. The doctors of America, in cooperation with the prepaid medical and hospital care plans and the many splendid voluntary health insurance systems, have made great progress in achieving that objective, so we have no quarrel with the President on that score.

"President Truman, however, proceeds from a desirable objective to a highly-undesirable proposal for achieving that objective. There is a great deal of double-talk in the President's message, but what he actually proposes is a National Compulsory Health Insurance System which would regiment doctors and patients alike under a vast bureaucracy of political administrators, clerks, bookkeepers and lay committees.

"Every wage-earner, every self-employed person and every employer would be compelled to contribute exorbitant payroll taxes, eventually mounting to a tax of 8 or 10 per cent on every paycheck, to support this system—and the cost of medical care, instead of being reduced, would be doubled and trebled by bureaucratic overhead. The record is clear in every country where Compulsory Health Insurance has been adopted. It is cheap in quality, but extravagantly high in price.

"The President's message, in some respects, was persuasive and disarming. The ideals and objectives were stated in glowing terms, but the message was completely lacking in any specific statement of the services to which the people would be entitled, or any estimate of the taxes which they would be compelled to pay.

"Mr. Truman has been too long away from Missouri, if he believes the American people will sign a blank check for such an ambiguous program. The people will want to be shown.

"There are many fallacies and misstatements in the President's message, some of which cannot go unchallenged.

"President Truman, for example, is about a decade behind the times in his statistics on the growth of the Voluntary Health Insurance Systems.

"He reports that only 3,500,000 people have insurance which provides adequate health protection. Ten or 15 years ago that was true. Today, Mr. President, 55,000,000 Americans are protected, under the Voluntary Health Insurance Systems of this country, against the costs of hospital care, and 37,000,000 policyholders are insured against surgical or medical bills.

"Again, the President falls into the error of stating that only limited, inadequate health protection is available under the Voluntary Health Insurance Systems. Actually, the voluntary systems are providing better coverage today than any compulsory program yet proposed—at about half the price.

"President Truman also makes the amazing assertion that adequate medical care is now

beyond the means of all but the upper income groups. On the contrary, any family which can afford a package of cigarettes a day, or a weekly movie, can afford the finest kind of prepaid medical and hospital protection. The cost is about the same.

"The most serious misstatement in the President's message—and one which it is regrettable any President of the United States would have uttered—is the repetition of that now completely discredited statement that tens of thousands of persons die needlessly in this country, due to lack of medical care.

"The President, in this instance, as in others, undoubtedly based his statement on the distorted report of the Federal Security Administrator, whose listing of 'needless deaths' include 40,000 deaths from accidents and 115,000 from cancer and heart disease.

"It is shocking that any government department head would seek to impose on the credulity of the American people with such flagrant misrepresentations—and it is unfortunate, indeed, that the President of the United States should have repeated, even in part, the misinformation contained in this report.

"There is a very real need in America for the budgeting of medical costs and American medicine is proud of the part it has played in building the Voluntary Health Insurance Systems to meet that need. There is no need, however, for compelling the American people to join a government system. The voluntary way is the American way—and the people will resolve this problem, in a very short span of years, under the voluntary systems now available to them."

EXPECT A. M. A. SESSION TO DRAW RECORD ATTENDANCE

A record attendance of more than 16,000 doctors is expected at the annual session of the American Medical Association, to be held June 6 through June 10 in Atlantic City.

Scientific and technical exhibits will occupy most of the great floor of the Atlantic City Convention Hall, and a scientific program covering every phase of current interest in the field of medicine will be presented.

One of the outstanding contributions of the session probably will be a symposium on environmental hygiene, directed primarily to the subject of air pollution from smoke and "smog," and concerned with possibility of relationship between cancer and inhalation of aromatic hydrocarbons.

Special arthritis exhibits will be unique. Most of the invited guests from other countries to the International Congress on Arthritis and Rheumatic Diseases will attend the A. M. A. session and participate in exhibits and discussions of arthritis and rheumatic diseases.

The scientific sections will include new meetings on allergy, diseases of the chest, and the

history of medicine. Meetings dealing with advancement in medicine and surgery will be sponsored by Drs. Roger I. Lee and Frank Lahey, of Boston.

A program involving the use of television for teaching surgery will be unusual. Patients and equipment from the University of Pennsylvania School of Medicine will be brought to the Atlantic City Hospital and television in four colors will be available to convention visitors in the Convention Hall.

Use of television in making x-ray films clearer and sharper will be a contribution from the University of Illinois College of Medicine, Chicago. Investigators found that an extremely high degree of accuracy can be obtained in presenting x-ray films on television.

The House of Delegates of the American Medical Association at the Atlantic City session will be concerned with current problems of great importance to American medicine. A variety of legislation is under consideration by Congress and the Senate dealing with medical care. From present indications, this legislation will still be in process of hearings at the time of the Atlantic City session and the House of Delegates will have opportunity to study the views of representatives of most American physicians at that time.

Current newspaper reports indicate that President Truman proposes to send his health message to Congress soon. That, too, will be available for consideration by the House of Delegates.

The coordinating committee which is in charge of the educational program for the American people on medical care in the United States will no doubt report to the House of Delegates the progress of their activities, as will the special public relations counsel in charge of this work.

The Council on National Emergency Medical Service of the American Medical Association is actively engaged in developing the necessary personnel for the armed forces, and policies of the medical profession in relationship to military service will be considered. The Council on Medical Service has been conducting conferences with representatives of industry, labor, agriculture, insurance, and other groups especially concerned with medical care. The report of this council will no doubt occupy much of the time of the House of Delegates.

The A. M. A. Council on Medical Education and Hospitals has begun a new survey of medical education in the United States, and a number of bills have been introduced in Congress proposing various forms of federal aid to medical education. These policies likewise must be determined by the House of Delegates.

A Grass Roots Conference for county medical society secretaries will be held Sunday, June 5. The Woman's Auxiliary to the American Medical Association has developed a comprehensive program of discussions, and the president of the Woman's Auxiliary will participate in the opening general meeting Tuesday night, June 7.

PUBLIC RECEIVES AS GOOD MEDICAL CARE AS DO DOCTORS, STUDY SHOWS

Doctors are giving the general population as much and as good medical care as they are giving themselves, a study of causes of death among doctors shows.

The study, made by Frank G. Dickinson, Ph.D., director of the American Medical Association Bureau of Medical Economic Research, and Everett L. Welker, Ph.D., associate in mathematics of the bureau, appears in the April 23 *Journal of the American Medical Association*.

Doctors do not live longer than white men of the same age group, according to the study. When allowance is made for the age distribution of doctors (only a few doctors are under 25), the fact that their average age at death is much higher than the average age at death of the general population is explained.

A comparison of statistics for doctors (obtained from obituaries of 3,167 doctors published in *The Journal of the American Medical Association* in 1943) with statistics for white men of the same age group (women doctors and non-white doctors are relatively few) shows that the average age at death of doctors is 67.3 and the average age at death of white men of comparable ages is 67.5.

Heart diseases, the leading cause of death among doctors, is actually an occupational hazard of the profession, the study points out. Heart disease accounted for 42.2 per cent of all deaths among the doctors studied, a high rate perhaps due to loss of sleep, irregular meals, and emotional strain. It was also the leading cause of death among white men of comparable ages, but accounted for 38.9 per cent of their deaths.

Cancer, which has the second highest rate as a cause of death among white men of comparable ages, was third among doctors. Cerebro-vascular diseases were second among doctors, and third among the white male group.

This lower cancer rate among doctors is probably due to their ability to recognize symptoms early and begin treatment promptly, Dr. Dickinson and Dr. Welker believe. Other leading causes of death among both doctors and the white male group were accidents, pneumonia, kidney disease, and tuberculosis.

"Although the causes of death are different for physicians, the net effect on length of life is negligible," the report says, adding:

"The medical profession apparently is giving to the general population at least as much and at least as good medical care as it is giving itself. Apparently the members of the medical profession cannot give their fellow members longer life than their patients enjoy."

UNDULANT FEVER IS VACATION HAZARD

Vacationists in rural areas may become infected with undulant fever unless they are care-

ful not to drink raw milk and use raw milk products, a Berkeley, Calif., doctor warns.

Writing in the current (April) issue of *Hygeia*, health magazine of the American Medical Association, George A. Skinner, M.D., says there is almost the same vacation problem from undulant fever that appeared with typhoid fever years ago. General ignorance or disregard of the methods of spreading undulant fever adds to the difficulties, he points out.

Many people pick up the infection of undulant fever on vacation trips and fail to recall possible sources of infection when symptoms of the disease appear months later, according to Dr. Skinner.

"Undulant fever (also called brucellosis, Malta fever, Mediterranean fever, and Danube fever) may imitate anything from a mild cold to severe mental illness or appendicitis," he says. "Often there are no early, typical symptoms although some of the first symptoms resemble those of most acute infections."

Undulant fever is transmitted to human beings from infected cattle, swine, and goats. The acute form is transmitted chiefly in raw milk and milk products. Undulant fever is found in every state and is most prevalent in agricultural and dairying regions.

Observations by health authorities indicate that the number of cases is increasing in the United States, Dr. Skinner says, and that 10 times the reported 3,500 cases occur annually. Tests for the disease in thousands of cattle have proved positive in at least 5 per cent.

USE CAUTION IN HANDLING FLUORESCENT LIGHT TUBES

Handle fluorescent light tubes with caution and dispose of them carefully, advise three doctors from the Plastic Surgery Service in Kings County Hospital, Brooklyn.

Writing in the April 23 issue of the *Journal of the American Medical Association*, Walter A. Coakley, M.D., Raymond N. Shapiro, M.D., D.D.S., and George W. Robertson, M.D., say that cuts from broken fluorescent light tubes may cause serious ulcers and tumors which can be cured only by removing tissue from a wide area surrounding the injury.

The doctors report that a 16-year-old boy developed a tumor from a cut caused by a broken fluorescent tube. They believe the tumor was due to beryllium inside the tube.

PUBLIC WOULD PAY HIGH COST OF ADMINISTERING HEALTH PROGRAM

Estimates by competent economists indicate that a minimum of 400,000 to 500,000 additional personnel would be required to administer a national health program, and that the costs might vary from \$10,000,000,000 to \$18,000,000,000 per year, says an editorial by Morris

Fishbein, M.D., Chicago, editor of *Hygeia*, health magazine of the American Medical Association, in the current (April) issue.

The editorial follows in part:

In May 1948 Mr. Oscar Ewing, Federal Security Administrator, called in Washington a National Health Assembly. More than 300 persons attended, including representatives of most important aspects of American life concerned with health. Physicians were represented by persons designated by the American Medical Association as representing its Council on Medical Service, its officers, and its committees.

All the agricultural, labor, industrial, and educational organizations of the country were fully represented. The press, the church, the law, the hospitals, the dental profession, and similar groups sent delegates who were concerned with planning for the nation's health.

Sixteen sections held meetings daily and culminated their meetings with statements of their observations and their recommendations. These were turned over to the Federal Security Administrator so that he might bring them to the attention of his executive committee. Almost nine months have passed, yet the conclusions of these groups have never been published. Instead the Federal Security Administrator issued in September 1948 a pamphlet called "The Nation's Health" which referred briefly to these reports and offered a nationwide system of compulsory sickness insurance as the answer to the problems of progress in medical care.

The special section of the assembly which was concerned with medical care did not recommend compulsory sickness insurance but recommended instead a rapid extension of voluntary sickness insurance plans and programs. This is the issue before the American people today. Let it be clearly understood that on almost every other problem confronting the medical profession and the public health there is complete agreement between representatives of the medical profession and representatives of government agencies.

Again and again great statesmen have warned against too much control by government in the intimate affairs of the people. History shows that once government takes over such powers, freedom is regained only with the greatest of difficulty.

At present the Federal Security Agency employs some 40,000 people to administer those affairs in the field of health, education, and welfare that are now under its control. Estimates by competent economists indicate that a minimum of 400,000 to 500,000 additional personnel would be required to administer a national health program, and that the costs might vary from \$10,000,000,000 to \$18,000,000,000 per year if a reasonably good quality of medical service were to be provided. These figures cannot be contradicted since these estimates are supported by unquestionable evidence.

CANCER COMMISSION, MEDICAL ASSOCIATION OF GEORGIA

CANCER NEWS

In the preceding issue of the Journal we discussed in the *Cancer News* the queries which came to attention regarding the detection of cancer. Now come other questions, such as "Is there some form of "shots" or "injections" that will cure cancer?" This seems a very pertinent time to briefly consider each of the more important remedies that fall in the injection category with an effort to evaluate each of them, basing our opinion upon information generally current among the medical profession.

Testosterone Propionate. When given in large or sufficient dosage, this hormone suppresses ovarian activity, and will often produce striking palliative results in older women with cancer. In younger women it must be cautiously utilized, for it may stimulate carcinoma of the breast. Metastases with pain, especially in bone, are greatly relieved; elsewhere metastases are unaffected. It seems wise not to use testosterone unless x-radiation has failed to give the desired results.

Recently Cutler, in Chicago, treated 20 patients using testosterone. Eleven died one year after treatment. Four showed improvement of short duration. Small numbers exhibited palliative reactions. No cures were obtained.

Estrogen. This hormone is carcinogenic in animals, but this result does not necessarily apply to humans, but in cancer families, or in women who have malignant potentials, estrogen should not be given. If cancer pre-exists in the uterus it will accelerate the growth in that organ. The main point to remember is this: *do not give estrogen to persons with a cancer background!*

Nitrogen Mustard. Its use is limited, so far, to the treatment of lymphosarcoma and Hodgkin's disease. This chemical is dangerous and produces nausea and vomiting of a severe degree. It unquestionably affects some cases, especially long-standing chronic types with slow progres-

sion; however, the end or general results parallel those obtained by x-radiation. One must guard against the production of granulocytopenia during its administration. Its use is still highly experimental. In lymphosarcoma the result is unpredictable. Most patients die in a few months after treatment; some few patients may respond.

Urethane. This peculiar chemical seems non-toxic to normal individuals. In leukemias, however, it causes a profound fall in the leukocytes, and fatal granulocytopenia often occurs. It has also produced death in the patient. Its use is experimental and highly questionable.

Aminopterin. Here we have a chemical which appears to be a folic acid antagonist. It is also a dangerous drug, causing severe leukopenia, stomatitis, abdominal pain, hemorrhages and alopecia. Out of 43 patients treated by Meyer and Ritz, four showed hematologic improvement, and some authorities (Kracke, et al) seem to think it will prolong life in 60 per cent of acute lymphoid leukemias. In most instances, however, the majority of the patients have no alteration in the usual clinical course. The general impression at this writing is that this drug will have very little use in treating leukemia. The dosage to be used cannot be gauged by age, weight or in association with general hematinics such as liver. Any cures reported must be viewed with skepticism.

To summarize, we are sad to admit that "injections" have limited use in the modern armamentarium for treating cancer, malignant blood, or glandular dyserasias. We must still continue to rely on our main helps: good surgery, x-radiation, and radium. Added to these we can advise good food, proper living, encouragement, transfusions when indicated, vitamins, and faith in God with hope that some one will eventually find a cure for malignant maladies.

JACK C. NORRIS, M.D.

Chairman, Cancer Commission,
Medical Association of Georgia.

GEORGIA DEPARTMENT OF PUBLIC HEALTH

RABIES SITUATION IMPROVES

In business inventories are taken at stated intervals to determine whether or not business is being conducted at a profit or loss, and to what extent. In other phases of endeavor, particularly public health, where changes in policy reflect our increased knowledge and/or cumulative experience, it is well to pause occasionally and take stock.

During the past few years a State-wide rabies control program has been initiated in Georgia and several innovations in the management of human exposures to suspected or known rabid animals have been made by the Georgia Department of Public Health. Sufficient time has elapsed to warrant an evaluation of their effectiveness.

For many years numerous attempts to obtain passage of a State rabies control law had been made. However, fruition was not accomplished until 1945 when the General Assembly passed a State-wide rabies control act which went into effect ninety days after its passage. This act made compulsory the annual vaccination against rabies of all dogs. An active vaccination program was not possible until the following year, as it was necessary to secure a competent veterinarian to direct the program and to get the purely mechanical processes in operation in each of the 159 counties since the enforcement provisions of the act were left with the various county boards of health. The operation of the control law now in force does not give optimum results from an overall standpoint. Nevertheless, the results obtained, as evidenced by the continued decrease in the number of animal heads submitted for examination since passage of the law, as well as the decreasing number of positive findings, both numerically and on a percentage basis, are gratifying indeed. See Table 1.

Year	Animal Head Examinations		
	Total	Dog-Positive	Fox-Positive
1945	1635	499	154
1946	1890	385	266
1947	1295	320	67
1948	1167	263	76

Animal heads are examined for evidence of rabies in the four Georgia Department of Health laboratories located in Atlanta, Macon, Albany, and Waycross, and in the city-county laboratories in Savannah, Augusta, and Columbus. During 1948 the State laboratories examined 1,022 animal heads, the lowest number in ten years. Of these, 318 showed positive evidence of rabies, the lowest positive findings in nineteen years. The percentage of positives was 31.1 per cent. Inclusion of the animal heads examined in the city-county laboratories brings the total examination figures up to 1,167 with 388 positives,

raising the percentage level to 33.2 per cent. This percentage positive is the lowest since 1906, the first year laboratory records on animal head examinations were kept.

The record would have been even better except for several local areas in which extensive outbreaks occurred. In Chatham County rabies flared up in the early spring and was largely confined to dogs within Savannah proper. Drastic control measures were immediately taken by the local health authorities but it was several months before the outbreak was brought under control. During the year 110 animal heads were examined in the Savannah laboratory, of which 64 were found positive. Also reflecting the serious nature of the rabies situation was the number of human antirabic treatments administered, 89, making Chatham County the heaviest user of antirabic vaccine for 1948. The one human rabies fatality for the year was reported from this county and occurred in a patient who had not received antirabic treatment. Diagnosis was confirmed by laboratory examination.

Rabies was endemic in DeKalb County throughout the year. 44 positive animal heads having been submitted. Antirabic treatment was furnished to 19 persons in this county. Fulton County and Atlanta, although having the largest dog population in the State, through continued application of control measures, kept the number of positive animal heads down to an all-time low of 19. Nine other counties submitted 10 or more positive animal heads during the year. Thus, approximately 60 per cent of all the positive heads were received from 12 counties.

While the dog continues to be the principal vector of rabies in our State, the disease in foxes has become a serious problem in recent years. Rabies was found in 76 fox heads received from 30 counties during 1948. This was approximately 20 per cent of all positive findings. Thirty-nine persons received antirabic treatment as a result of exposure to rabid foxes. As the year closed it appeared that rabies in domestic animals was being brought under control, whereas the disease in foxes was spreading. Means of controlling fox rabies are just as effective and available as those utilized in controlling dog rabies but they cannot be applied unless public and official support are given and this cannot always be obtained, even from those counties most vitally concerned.

Additional evidence of the effectiveness of a State-wide rabies control program is obtained in a study of the human antirabic treatments given. Since the passage of the rabies control act in 1945, the annual distribution of antirabic treatments has steadily decreased in number. See Table 2.

TABLE 2
Human Treatments and Fatalities

Year	Treatments		Fatalities	
	Total	Counties	Treated	Untreated
1945	2426	139	3	2
1946	1735	136	2	1
1947	1358	126	—	1
1948	934	110	—	1

During the past year 934 complete treatments were given. This was the smallest number issued by the Georgia Department of Public Health since 1915.

While the lowered incidence of rabies in animals is an important factor in the continued decline in the number of human antirabic treatments distributed, another important factor, in our opinion, was the adoption by the Georgia Department of Public Health of more conservative policies in the management of human exposures.

Early in 1936 we adopted a policy of furnishing a precautionary scheme of treatment for exposures other than actual teeth wounds. (1) This shorter treatment consisted of 12 daily injections and was introduced at this time as a result of our increased knowledge of rabies made possible by an accumulation of data over a period of years. It reflected our growing conservatism regarding the necessity for administering antirabic treatment for any exposure other than an actual bite. Since 1937, the first full year this treatment was in use, 10,219 precautionary or 12-dose treatments, representing 38.5 per cent of all treatments, have been distributed. Of the 934 treatments distributed during last year, 45.3 per cent were of the precautionary type. However, many of these treatments, in our opinion, were unnecessary and it continues to be the department policy to recommend that "for all exposures other than actual bites, antirabic treatments should be strongly discouraged". (2) Had our recommendations been more fully accepted last year, the total number of treatments would have been much less than were actually distributed.

Since 1925 we have encountered 7 cases of treatment paralysis among approximately 52,000 persons treated. Four of these terminated fatally. Five had previously received antirabic treatment. The last 2 cases occurred in 1945, following a second course of antirabic treatment. One terminated fatally. This patient had been in contact with a rabid dog but had not been bitten. At that time a review was made of the available information on post-vaccinal accidents which had occurred in Georgia and those reported by others in the literature. The conclusion was reached that antirabic vaccine is not harmless and that, while post-vaccinal accidents are infrequent, the danger of their occurrence is greater than is the danger of contracting rabies from exposures other than actual or suspected bites or scratches by the teeth of the rabid or suspected animal. Accepting the prevailing belief

that treatment paralysis is an allergic phenomenon brought about by specific sensitization to brain tissue proteins, we considered repetition of treatment as an acquired predisposing factor which should be avoided. (3) This led to the adoption in 1947 of the policy of advising against retreatment of individuals previously treated unless actual bites had been inflicted by known or suspected rabid animals, and of advising not more than 6 injections of vaccine for those previously treated, regardless of the elapsing interval since the last treatment or the severity of the wounds. The adoption of only 6 doses was based on the following reasoning: (a) Reactions involving paralysis had not occurred in any of the cases studied until after the 10th or 12th injection of the repeated treatment; (b) evidence indicated that residual immunity produced by the original treatment can be quickly re-established by a small number of "booster" doses. During the past two years, 57 of these abbreviated retreatments were given. There were no fatalities in this group and no post-vaccinal accidents.

In conclusion, it would appear that progress has been made in the control of rabies in Georgia and that with the continued and unrelenting application of control measures, the disease in both domestic and predatory animals can be reduced to still lower levels. However, foci of infection, especially in predatory animals, remain in existence throughout the State and any relaxation of our effort toward complete control will undoubtedly result in a rapid resurgence of the disease. Continued discouragement of antirabic treatment for those not actually bitten should result in a further lowering of the number of antirabic treatments distributed annually, while adherence to the policy of exercising extreme caution in treating persons who, at any time, previously have received antirabic treatment, should minimize the possibility of post-vaccinal accidents.

E. J. SUNKES, D.P.H., Director
Division of Laboratories

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1. Sellers, T. F.: Rabies, the Physician's Dilemma. *Am. J. Trop. Med.* vol. 28, no. 3, (May) 1948.
2. Sellers, T. F.: Limitations of Antirabic Treatment. *J. M. A. Georgia* (April) 1946.
3. Sellers, T. F.: Complications of Antirabic Treatment. *J. M. A. Georgia* (Jan.) 1947.

NEWS ITEMS

Dr. Wm. B. Armstrong, Atlanta, announces the removal of his office to suite 611 Medical Arts Building, Atlanta.

* * *

The American Academy of Pediatrics held its area meeting at the Biltmore Hotel, Atlanta, April 13-15, 1949. Close to 1,000 pediatricians registered from 24 states, Ontario and Puerto Rico.

* * *

The Atlantic Coast Line Railroad Surgeons' Association held its 45th annual meeting at General Oglethorpe Hotel, Savannah, March 31-April 1. Approximately 150 surgeons, medical examiners and consultants on the medical staff of the railroad attended. Dr. Allen W. Coward, Savannah, was chairman of the committee on arrangements. Officers are Dr. Kenneth C. Pace, Greenville, N. C., president; Dr. Ben Hill Clifton, Atlanta,

first vice-president; Dr. L. M. Gable, St. Petersburg, Fla., second vice-president; Dr. E. A. Drum, Richmond, Va., third vice-president, and Dr. Bra-well E. Collins, Waycross, secretary-treasurer.

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Dr. W. H. Bonner, formerly of Lavonia, announces the opening of his office in the Professional Building, Athens. Practice limited to pediatrics. Dr. Bonner graduated from the University of Georgia School of Medicine, Augusta, in 1942 and served as an intern for a year at Charity Hospital, New Orleans, La. He served three years as captain in the U. S. Army Medical Corps, serving overseas in India, Burma, and China. After his discharge from the Army he was resident physician at the Children's Hospital, Chattanooga, Tenn., for one year and then a year at the University Hospital, Augusta.

* * *

Dr. Enoch Callaway, LaGrange, president-elect of the Medical Association of Georgia and chairman of the State executive committee of the American Cancer Society, recently announced a blood test for cancer, just discovered by a Chicago scientist, will be brought to Georgia's three cancer detection centers as soon as it is proven reliable. The test was discovered by Dr. Charles B. Huggins, of the University of Chicago, who did his research under a grant from the cancer society. As described in press dispatches, the test is based on albumin disturbance in the cancer patients. This imbalance can be detected in the blood by coagulating the blood by heat, it is said. So far, tests have been conducted only on about 300 persons, not enough to consider conclusive, Dr. Callaway said. The Chicago scientist has been given a further grant to continue his studies.

* * *

Dr. Lincoln P. Elam, Jr., Sparta physician, has arranged a portion of the second story of the Chamblee Building, Sparta, for a maternity clinic and has it well equipped for maternity cases. The rooms are all connecting, with as modern equipment as can be found in a city hospital. The delivery room has an operating table; an incubator and an x-ray room are next door. Dr. Elam can care for three patients at one time. He has spared no expense to give Sparta and Hancock County a modern medical and surgical clinic, which will fill a long-felt need. Congratulations, Dr. Elam!

* * *

Emory University School of Medicine, Atlanta, furnished eight physicians to take part in the 37th annual clinic of the John A. Andrew Clinical Society at Tuskegee Institute, Tuskegee, Ala., April 13. Dr. F. D. Patterson, president of Tuskegee Institute, said the clinic was organized "for the advancement of Negro physicians and surgeons in the science and art of medicine and surgery and for the study of morbid conditions affecting thousands of needy sufferers in this section of the South." Dr. R. Hugh Wood, Atlanta, dean of Emory University School of Medicine, addressed the assembly on "Education for the Professions." Dr. Ira Ferguson, Atlanta, associate professor of clinical surgery at Emory and surgeon-in-chief of Grady Memorial Hospital, participated in a panel discussion of "Hyperthyroidism." Other speakers from Emory included Dr. Edgar F. Fincher, Dr. Frederick W. Cooper, Dr. David F. James, Dr. Robert P. Grant, Dr. Paul L. Rieth, and Dr. Charles F. Stone.

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Dr. M. Fernan-Nunez, Dublin, chief of laboratory service of the Veterans Administration Hospital, was guest speaker at the annual meeting of the Augusta-Richmond Tuberculosis Association, Augusta, April 5.

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The Fulton County Medical Society held its dinner meeting at the Academy of Medicine, Atlanta, April 21. Scientific program: Cancer Symposium, Dr. Warren Matthews, moderator. "Malignancies of the Skin, In-

cluding Melanoma", Dr. Calvin Stewart; "Carcinoma of the Buccal Cavity", Dr. Elliott Scarborough; "Treatment of the Patient with Malignancy", Dr. Robert Lee Brown.

* * *

The Eighth District Medical Society held its semi-annual meeting at the Douglas Golf Club, Douglas, April 12. Program: Meeting called to order by Dr. H. A. Seaman, Waycross, president; Invocation by the Rev. J. L. McGirt, Douglas; Address of Welcome by Dr. Sage Harper, Douglas, president, Coffee County Medical Society; Response to Address of Welcome, Dr. M. E. Winchester, Brunswick; Business session. Scientific program: "Medical Aspects of Atomic Warfare," Dr. Arthur Knight, Jr., Waycross; "Recent Advances in the Treatment of Cancer," Dr. Hoke Wammock, Augusta; "Roentgenologic Diagnosis of Common Diseases of the Digestive Tract", Dr. F. G. Eldridge, Valdosta; Case Reports: "Preinvasion Cancer of the Cervix" and "Adenocarcinoma of the Jejunum", Dr. T. J. Ferrell, Waycross; "Recent Advances in the Treatment of Thyroid Diseases", Dr. David Henry Poer, Atlanta. The Coffee County Medical Society entertained the members of the society and members of the Woman's Auxiliary at a barbecue following the program. Officers are Dr. H. A. Seaman, Waycross, president; Dr. J. B. Ayera, Brunswick, vice-president, and Dr. G. T. Crozier, Valdosta, secretary.

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The Georgia Baptist Hospital medical staff dinner meeting was held in the Nurses' Home dining room, Atlanta, April 19. Program: The clinico-pathologic discussion was centered around cancer of the larynx. Dr. J. C. Blalock, Atlanta, secretary.

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The Georgia Medical Society, oldest society of physicians in Georgia, met to formally dedicate its newly enlarged building and commemorate the birthday of Dr. Crawford W. Long at 612 Drayton Street, Savannah, March 30. Drs. Thomas J. Charlton, Monroe J. Epting and T. A. McGoldrick were the featured speakers. Also a sound motion picture, "New Frontiers of Medicine." Additions and remodeling of the building were paid for from funds contributed voluntarily by members of the society. And the doctors made a substantial contribution to the Savannah Tumor Clinic, which is housed in the society's building. A joint committee of doctors and members of the Woman's Auxiliary were in charge of arrangements for the celebration, including Drs. Laurence B. Dunn, chairman, J. H. Pinholster, Ralph G. Bowden, Mrs. John G. Sharpley, Mrs. G. Hermann Lang, and Mrs. Joseph Pacifici. Congratulations to members of the Georgia Medical Society!

* * *

The Georgia Public Health Association held its meeting in Savannah, May 2-4. Many noted physicians and health officers attended the annual meeting. They included Dr. C. L. Williams, assistant surgeon general of the U. S. Public Health Service; Dr. C. E. A. Winslow, editor of the Journal of the American Public Health Association, Dr. M. R. Kinde, of Kellogg Foundation; Reginald M. Atwater, of the American Public Health Association; Dr. Russell M. Wilder, of the Mayo Clinic; Dr. Ruth E. Grout, of the University of Minnesota, and several officials of the Federal Public Health Service. Gov. Herman Talmadge addressed the convention at the evening session, May 2. Mr. H. L. Wingate, president of the Georgia Farm Bureau, spoke at the banquet May 3.

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The Georgia Medical Society held its regular meeting at the society's hall, 612 Drayton Street, Savannah, April 12. Program: "Cancer of the Lip", Dr. R. L. Oliver, Dr. Sam Youngblood, Jr., secretary.

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Dr. Louie W. Girtman, Forsyth, announces his association with Dr. A. W. Bramblett, Jr., Bramblett Clinic,

Forsyth, for the practice of medicine and surgery.

* * *

Dr. Robert B. Greenblatt, Augusta, of the department of endocrinology, University of Georgia School of Medicine, was one of the featured speakers at a recent conference on sex hormones and breast cancer at headquarters of the American Medical Association in Chicago. The meeting was sponsored by the Therapeutic Trials Committee of the American Medical Association. Dr. Greenblatt reported on the implantation of pellets of free testosterone, the male sex hormone, beneath the skin of women who are suffering from advanced cancer of the breast. The conference—a four day gathering—brought together leading participants in a large-scale, cooperative research projects to determine the effects of sex hormones on breast cancer. Based on conclusions reported by these collaborators, it is hoped that an effective program for the future may be formulated for the study of breast cancer. Dr. Greenblatt emphasized the point that only "truly beneficial" effects from the implantation of the pellets of testosterone "were increase in weight and in the feeling of well-being of many patients." The rapid spread of the disease in some cases could not be halted, he said, pointing out that all of the patients were at a stage where surgery or radiation therapy would be of no avail. "Although the results of our series of cases (16 in all) have not been encouraging," Dr. Greenblatt reported, "it is felt that where androgens are indicated that implantation of pellets of testosterone has proven a great convenience to patient and doctor." Dr. Greenblatt also addressed a meeting in Houston, Texas, and delivered a third address in Washington, D. C.

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Dr. Zack E. Greer, formerly of Cordele, announces his association with Dr. H. G. Davis, Jr., Sylvester, for the practice of medicine.

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Dr. G. Lombard Kelly, Augusta, dean of the University of Georgia School of Medicine, has started a drive to have placed in Augusta a proposed State hospital for the mentally ill. A previously announced plan would construct the 1,000-bed hospital near Atlanta. In a letter to State officials Dr. Kelly said the University of Georgia School of Medicine had been striving for years to obtain such an institution. He called attention to the fact that the Veterans Administration is putting all of its hospitals close to schools of medicine. "It would certainly be logical for the State of Georgia to follow the same plan," he wrote.

* * *

The Laurens County Tuberculosis Association met in the conference room of the Veterans Administration Hospital, Dublin, March 30. Dr. David E. Quinn, Dublin, manager of the VA Hospital and president of the association, presided. The sale of Christmas Seals which totaled \$1,651.57 was reported. Dr. O. H. Cheek, Dublin, public health officer, spoke briefly.

* * *

The Lenwood Hospital, Augusta, recently held a two-day seminar on neuropsychiatry, with leading physicians from various parts of the country in attendance. Col. John M. Caldwell, Jr., Augusta, who is now chief of the neuropsychiatry consultant division, office of the Surgeon General, Department of the Army, Washington, D. C., spoke on "Proposed Nomenclature for the Use of the Army, Navy, and Veterans Administration." Other eminent men who participated in the seminar, which was arranged by Dr. C. C. Odom, manager of Lenwood Hospital, were Dr. R. S. Crispwell, Atlanta, Dr. Daniel Blain, Washington, D. C., Dr. Henry W. Brosin, Chicago, Dr. Williams G. Lennox, Boston, Dr. Harvey J. Tompkins and Dr. James Brewer.

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The Macon-Bibb County Health Department members

participated in a roundtable discussion at a meeting of the Citizens Health and Safety Council, Macon, March 31. Participants on the forum were Dr. C. C. Meissner, director of dental work; Joel C. Beall, sanitary engineer, Dr. R. Frank Cary, city-county officer, and Miss Beulah Daniel, public health nurse. Each of the health officials told of the duties of their departments and how they function.

* * *

Dr. R. C. McGahee, Augusta pediatrician and a member of the medical group opposing passage of the three bills pending action in the U. S. Congress regarding the pros and cons of socialized medicine as embodied in the bills, addressed the members of the Exchange Club, Augusta, March 24. Dr. McGahee reminded his listeners that "these bills, if enacted into law, will materially and drastically change the practice of medicine as you and I know it in America."

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Dr. J. N. Mullins, Chatsworth, announces the opening of his office in the Cohutta Bank Building, Chatsworth, for the practice of medicine.

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Dr. F. Levering Neely, Atlanta, recently attended the thirtieth annual convention of the American College of Physicians held in New York City.

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Dr. W. Bruce Schaefer, Toccoa, recently attended the convention of Surgeons of the Southern Railway System held in Cincinnati, Ohio.

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The Ninth District Medical Society held its meeting at the Methodist Church, Cumming, April 20. Program: Invocation, The Rev. V. O. Gentry, Cumming, pastor, Methodist Church; Address of Welcome, Dr. Marcus Mashburn, Cumming; Response to Address of Welcome, Dr. Wm. H. Good, Toccoa; Minutes of last meeting and election of officers. Scientific program: Symposium: "Psychosomatic Medicine", Dr. C. W. Strickler, Sr., Atlanta; "Neurologic Psychiatric Phase", Dr. Richard Wilson, Atlanta; "Surgical Phase", Dr. Elliott Scarborough, Atlanta; "Medical Phase", Dr. David James, Atlanta. Official remarks by Dr. Edgar D. Shanks, Atlanta, secretary-treasurer. Medical Association of Georgia. Dr. and Mrs. Marcus Mashburn, Cumming, were hosts to members and invited guests following the program. Dr. Wm. H. Good, Toccoa, president; Dr. Hartwell Joiner, Gainesville, secretary.

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Dr. C. C. Odom, Augusta, manager of the Veterans Administration Hospital for mental patients, and Dr. Thomas G. Peacock, Milledgeville, superintendent of Milledgeville State Hospital, were discussion leaders at a mental hospital institute held in Philadelphia, Pa., April 11-15. The American Psychiatric Association sponsored the institute, the first meeting of its kind held in many years.

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Dr. F. C. Nesbit, Covington, was recently named company surgeon for the Central of Georgia Railroad, succeeding the late Dr. W. D. Travis. Dr. Nesbit has been practicing medicine in Covington for a number of years.

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Drs. L. E. Pennington and Veronica Murphy Pennington, Milledgeville, recently resigned from the staff of the Milledgeville State Hospital. The two doctors have been on the staff of the institution for the past four years. They are leaving to accept posts with a veteran hospital in Albuquerque, New Mexico.

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The Second District Medical Society held its semi-annual meeting at Quitman, April 14. Dr. L. A. Smith, Quitman, is president of the Brooks County Medical Society, which served as hosts for the occasion. Fol-

lowing the program members and guests attended a banquet at the Quitman Country Club. Officers are Dr. J. C. Brim, Pelham, president; Dr. L. A. Smith, Quitman, vice-president; Dr. Frank Little, Thomasville, secretary-treasurer; Dr. C. K. Wall, Thomasville, councilor.

The Woman's Auxiliary to the Second District Medical Society met at the Civic Center, Quitman, April 14. Mrs. Cecil Brannen, Moultrie, presided, and Dr. Rupert H. Fike, Moultrie radiologist, spoke on "Cancer Control."

* * *

Dr. Thomas F. Sellers, Atlanta, director of the Georgia Department of Public Health, and Dr. Abe Davis, Augusta, commissioner of health for Richmond County, conferred with public health classes at the University of Georgia School of Medicine, Augusta. Dr. E. S. Sanderson, Augusta, head of the public health department of the medical school, arranged for the conference.

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Dr. Eugene A. Stead, Jr., Durham, N. C., professor of medicine at the Duke University School of Medicine, was guest speaker at the monthly meeting of the professional staff conference at Oliver General Hospital, Augusta, March 23. His subject was "Reaction of the Body to Hemorrhage". All physicians and surgeons of the Augusta area were invited to attend the lecture. During his three day visit at Oliver General Hospital, Dr. Stead acted as a consultant physician in internal medicine. His appearance was in coordination with the intern and resident training programs under the direction of Col. Charles L. Leedham, chief of medical services, Oliver General Hospital.

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The Seventh District Medical Society elected the following officers at its semi-annual meeting held at Trion, April 6: Dr. S. M. Howell, Cartersville, president; Dr. Lee H. Battle, Jr., Rome, president-elect; Dr. S. B. Kitchens, LaFayette, secretary-treasurer; councilor; Dr. D. Lloyd Wood, Dalton, and vice-councilor Dr. M. M. Hagood, Marietta.

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Dr. John W. Simmons, Brunswick, was recently appointed chairman of the 1949 cancer fund drive at an organizational meeting. Dr. M. E. Winchester, Brunswick, was appointed a member of the executive board. The drive is sponsored by the Brunswick Woman's Club.

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Dr. Virgil P. Sydenstricker, Augusta, professor of medicine at the University of Georgia School of Medicine, was named a master of the American College of Physicians at their recent New York City meeting. Eminence of medical figures is even more important to Augusta's dream of becoming the medical center not only of Georgia but of the Southeast, than are buildings and appropriations; and local leaders pointed out that the recent elevation of Dr. Sydenstricker focuses the profession's attention upon Augusta. They stated that the mastership awarded Dr. Sydenstricker is still another step in the uphill fight to lift the Augusta medical center to a position of pre-eminence in the nation.

* * *

Dr. Edgar D. Shanks, Jr., Atlanta, recently discharged as a captain from the U. S. Army Medical Corps, having served two years, of which 15 months were spent in the Far East Command, will begin his work as junior assistant resident physician at University Hospital, Augusta, July 1. Dr. Shanks graduated from the University of Georgia School of Medicine, Augusta, in 1946, with honor. He is a member of the A.O.A. honorary medical fraternity.

The University of Georgia School of Medicine, Augusta, will receive \$25,000 from a cancer training award approved by the Public Health Service in Washington. This award is part of 17 cancer teaching grants totaling \$261,416 made by the National Cancer Institute. Approval was also made on special control grants totaling \$170,205 to develop and expand programs in nine non-governmental institutions.

* * *

Dr. Peter B. Wright, Augusta, professor of orthopedic surgery at the University of Georgia School of Medicine, recently attended the 48th annual meeting of the Association of Surgeons of the Southern Railway System, Cincinnati, Ohio. Dr. Wright, who was one of the featured speakers on the program, discussed interesting phases of his work in the orthopedic field of medicine.

* * *

Georgians pay tribute to Georgia physicians on Doctors' Day and to the memory of Dr. Crawford W. Long on the occasion of the 107th anniversary of his discovery of anesthesia. In schools, hospitals and public offices the story of how Dr. Long, a country doctor in Jefferson, first made use of anesthesia in surgery was recalled. At Crawford W. Long Memorial Hospital, the institution memorializing his name, nurses presented doctors and patients with engraved cards proclaiming "Crawford Long Day." Physicians wore white carnations in honor of the occasion.

The Woman's Auxiliary of the Baldwin Medical Society observed "Doctors' Day", the observance that was launched in Georgia and accepted as a national celebration, March 30, the anniversary date on which Dr. Crawford W. Long first used ether anesthesia in surgery. Flowers were placed on the graves of the county's departed physicians, and a dinner was given in honor of those now living in Baldwin County. Throughout the nation the Doctors' Day observance calls for some act of kindness, gift, or tribute in remembrance of doctors. The plan was adopted by the Woman's Auxiliary to the Medical Association of Georgia in Augusta in 1934 and later nationally recognized in June, 1935 in Atlantic City.

In Athens, the traditional Crawford W. Long Day exercises were held, featuring an address by Dr. William B. Hazeltine, professor of history at the University of Georgia. Dr. Hazeltine urged more present-day emphasis on the social sciences and humanities.

The Tift County Medical Society and the Woman's Auxiliary observed Doctors' Day in cooperation with medical societies and auxiliaries over the State of Georgia. A committee from the Auxiliary placed flowers on the graves of all physicians in the county. There are 16 physicians buried in Tift County cemeteries who gave their lives to the service of humanity. The annual dinner in honor of doctors was given by members of the Auxiliary at the home of Dr. and Mrs. R. E. Jones, Tifton.

The Woman's Auxiliary of the Ware County Medical Society honored the physicians of Ware County by pinning a boutonniere on Waycross doctors on the morning of March 30, and ending the observance with a banquet in the evening at Hotel Ware, Waycross. To commemorate those doctors who no longer live, flowers were placed in the hospitals. A great big orchid to all good physicians!

* * *

As a memorial to the late Dr. W. M. Ware, who was one of the founders of Ben Hill County Hospital, Fitzgerald, and who for many years managed and operated it as a private hospital, friends will dedicate certain rooms and facilities at the hospital to the memory of Dr. Ware. The great service rendered Fitzgerald and Ben Hill County by the late Dr. Ware merits a beautiful remembrance in some form and possibly no better one could be had than that of furnishing certain equipment for the hospital he so

dearly loved.

* * *

Georgia physicians participating on the program of the annual session of the American Medical Association to be held in Atlantic City, June 6-10, are Drs. D. Henry Poer, Dan C. Elkin, John R. McCain, Samuel R. Poliakoff, M. Hines Roberts, Robert P. Kelly, Jr., and Hal M. Davison, all of Atlanta; Drs. H. E. Nieburgs, Edgar R. Pund, J. Robert Rinker, Perry P. Volpitto, John M. Brown, Hoke Wammock, Charles W. Hock, Lester M. Bowles, V. P. Sydenstricker, and W. Knowlton Hall, all of Augusta; Dr. Mercer Blanchard, Columbus, and Dr. Wallace Bazemore, Macon.

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Dr. Warren B. Matthews, Atlanta, announces the removal of his office to 43 Medical Place, N. E., Atlanta (between Peachtree Street and Alexander Place, N. E., ground floor of Medical Arts Building). Internal medicine and pathology.

MEETING OF THE INTERNATIONAL ACADEMY OF PROCTOLOGY

The first meeting of the newly-formed International Academy of Proctology will be held at the Marlborough-Blenheim in Atlantic City, N. J. on Friday, June 10, 1949.

The scientific portion of the program will consist of the presentation of papers and motion picture films of interest to all physicians as well as to those specializing in proctology.

Further information and a copy of the program may be obtained by writing to Dr. Alfred J. Cantor, International Academy of Proctology, 43-55 Kissena Blvd., Flushing, N. Y.

PROGRAM EMORY UNIVERSITY MEDICAL ALUMNI JUNE CLINICS

June 1, 1949, Emory University Hospital
Dr. W. S. Dorrough, Presiding

9:00- 9:30 Surgery in the Aged, Dr. Henry Poer.
9:30-10:00 The Selection of Patients for the Surgical Treatment of Congenital Heart Diseases, Dr. Gordon Barrow.
10:00-10:30 Peripheral Arterial Insufficiency, Dr. Frederick W. Cooper, Jr.
10:30-11:00 The Patient with Many Complaints and Few Physical Findings, Dr. Hugh Wood.
11:00-11:30 The Management of Esophageal Obstruction, Dr. Osler Abbott.
11:30-12:30 The W. S. Elkin Memorial Alumni Lecture.

The Role of Nutrition in Heart Disease, Dr. Samuel Proger, Medical Director of the Boston Dispensary, Boston, Massachusetts, introduced by Dr. Hugh Wood.

Panel Discussions—Emory University Hospital

2:00- 3:00 Gastro-Intestinal Diseases.
Dr. McLaren Johnson, Moderator
Dr. David James
Dr. Duncan Shepard
Dr. Paul Schroeder
Dr. William Bryan
3:00- 4:00 Acute Abdomen.
Dr. Ira Ferguson, Moderator
Dr. William Proctor
Dr. J. D. Martin, Jr.
Dr. Ted F. Leigh.

June 2, 1949, Colored Grady Hospital, Auditorium of the Nurses Home.

Dr. Cyrus W. Stricker, Jr., Presiding
9:00- 9:30 Diagnosis and Treatment of Carcinoma of the Larynx, Dr. E. S. Wright.
9:30-10:00 Syphilis: President-Day Management, Dr. Albert Heyman.
10:00-10:30 Hypertension in Pregnancy, Dr. R. A. Bartholomew.

10:30-11:00	Use of Anticoagulants: Depot Heparin Versus Dicumarol, Dr. Charles F. Stone, Jr.
11:00-11:30	Indications for the Porto-Caval Anastomosis, Dr. Wadley Glenn.
11:30-12:00	Antibiotics: Indications and Method of Using Penicillin, Streptomycin, Aureomycin, and Chloramphenicol, Dr. Paul Beeson.
	<i>Panel Discussions Colored Grady Hospital</i>
2:00- 3:00	Hematology. Dr. Charles Huguley, Moderator Dr. Tully Blalock Dr. Byron Hoffman Dr. John Butler
3:00- 4:00	Malignancy. Dr. Elliott Scarborough, Moderator Dr. Robert Brown Dr. Charles Hooker
	<i>June 3, 1949, Colored Grady Hospital, Auditorium of the Nurses Home</i>
9:00- 9:30	Intravenous Urography Dr. Charles Eberhardt.
9:30-10:00	The Use of Insulin Mixtures in Diabetes Mellitus Dr. Lewis Paullin.
10:00-10:30	Modern Trends in Gynecology Dr. John Denton.
10:30-11:00	Diagnostic Approach to the Problems of Chest Pain Dr. Bernard Wolff.
11:00-11:30	Management of Infections of the Hand Dr. W. Cleve Ward.
11:30-12:00	The Role of Cholesterol in Vascular Disease Dr. F. Levering Neely.
	<i>Panel Discussions, Colored Grady Hospital</i>
2:00- 3:00	Water, Salt, and Protein in Medical and Surgical Diseases Dr. Arthur Merrill, Moderator Dr. Parks McGinty Dr. Walter Cargill Dr. John Akin.
3:00- 4:00	Fractures Dr. R. P. Kelly, Moderator Dr. P. L. Rieth Dr. Randolph Smith Dr. J. H. Kite Dr. T. P. Goodwyn.

OBITUARY

Dr. Joseph Rodwell Carver, aged 30, Dalton physician, was drowned at Branford, Fla., when the boat in which he was cruising capsized, April 19, 1949. A native of Atlanta, Dr. Carver was the son of A. B. Carver and the late Mrs. Carver. He was a graduate of Atlanta public schools, Emory University, and the University of Georgia School of Medicine, Augusta, in 1947. He received his medical degree with honor, and was a member of A.O.A. honorary medical fraternity. He was a member of the Whitfield County Medical Society, the Medical Association of Georgia, and a fellow of the American Medical Association. Catherine Anne, 2-year-old daughter of Dr. Carver was drowned in the Suwanee River with her father. Double funeral services were held. Survivors include his wife; two daughters, Louise and Carol Glenn Carver, of Branford, Fla.; his father, A. B. Carver, Baltimore, Md., and a twin brother, Chas. H. Carver, Durham, N. C. Funeral services were held at Spring Hill, Atlanta, with the Rev. Molten of Branford, Fla. officiating. Burial was in West View Cemetery, Atlanta.

* * *

Dr. James Gardner Culpepper, aged 80, pioneer Colquitt County physician, died at his home in Moultrie

March 31, 1949. Dr. Culpepper graduated from University of Georgia School of Medicine, Augusta, in 1891. He had practiced medicine for more than a half century, most of the time in Colquitt County. Dr. Culpepper served as county physician for a number of years. He located in Moultrie in the early 90's and during his active career he ministered to the ailing in practically every section of his county, and was known to hundreds of persons. Dr. Culpepper married Mrs. Hattie Russ Nov. 16, 1893. She died in 1917. Survivors include two sons, J. G. Culpepper, Jr., and W. R. Culpepper, Moultrie; one daughter, Mrs. J. C. Long, three sisters; five grandchildren and five great-grandchildren. Funeral services were held at Greene-Gregory Chapel, with Dr. R. C. Gresham officiating. Burial was in Moultrie Cemetery.

* * *

Dr. Loren Gary, aged 63, Georgetown physician, died March 17, 1949. Dr. Gary graduated from Birmingham Medical College, Birmingham, Ala., in 1902. He had practiced medicine in Georgetown since the early 1900's. He was a member of the Randolph-Terrell Medical Society, the Medical Association of Georgia, and a fellow of the American Medical Association. Dr. Gary was serving his second term as state senator from the 12th Georgia District, and had served a number of terms as representative in the General Assembly since 1917. Dr. Gary was a member of the Georgetown Baptist Church, the Elks, and the Third District Medical Society. Survivors include his wife, the former Miss Beall Dozier; eight sons, Dr. Loren Gary, Jr., and Dr. Robert Eugene Gary, Tuscumbia, Ala.; Henry H. Gary, Altoona, Ala.; Richard B., Walter Britt, Joe J., Thomas, and Beall Dozier Gary, all of Georgetown; three daughters, Mrs. Harry Timm, and Misses Emily and Elizabeth Gary, all of Georgetown; one brother, four sisters, and ten grandchildren. Funeral services were held at the Georgetown Baptist church, with the Rev. M. C. Elmore officiating. Burial was in the Georgetown Cemetery.

* * *

Dr. Thomas Neal Kitchens, aged 86, retired Warm Springs physician, died April 23, 1949. Dr. Kitchens graduated from Louisville Medical College, Louisville, Ky., in 1891. He was the first director of the Warm Springs Hospital. Though it was already famous for the benefits polio patients received there, it was much less widely known than it is today. President Roosevelt's recovery, and his subsequent achievements, served to draw attention to the scene of his recovery. Dr. Kitchens lived to see the enterprise, which he directed, increase until it has become a historic spot, thanks to the frequent visits of the Roosevelt family to the Little White House there. All the world remembers that it was in this Georgia residence that Roosevelt died. Survivors are his wife; brother, J. C. Kitchens, Stockbridge; two sisters, Mrs. Maggie Kitchens, and Mrs. Betty Lou Kitchens, both of Mitchell, and several nieces and nephews. Funeral services were held at the chapel at Warm Springs. Burial was in Columbus.

* * *

Dr. William Jones Nix, aged 72, well known retired physician of Rockmart and Polk County, died March 17, 1949. Dr. Nix was born in Cherokee County and graduated from the Atlanta College of Physicians and Surgeons, Atlanta, in 1900. He is survived by his wife, Mrs. Sue Davitte Nix; one son, Woodrow Wilson Nix, Rockmart; one daughter, Mrs. Lois Nix Camp, Atlanta; one brother, Walter Nix, Canton, and one sister, Mrs. Minnie Page, San Francisco, Calif. Funeral services were held at the residence on Rockmart, Route 1, with the Rev. Taylor officiating. Burial was in Rose Hill Cemetery, Rockmart.

ART AS APPLIED TO MEDICINE

Art as Applied to Medicine, University of Georgia School of Medicine, announces the following courses:

A. Courses for Medical Students

1. A course in the techniques of medical illustration open to students in each year of medical school, to post-graduates and to members of the faculty for one afternoon a week throughout the year.

2. Research workers who require illustrations for their research will be given guidance upon request.

B. Courses for Medical Art Students

1. Special courses to medical illustrators who desire to take advanced work in a particular branch, or to scientific illustrators who wish to apply the techniques of medical illustration to a field of classical study other than medicine. Minimum fee \$40.00 per quarter.

2. A regular four year course for beginners. This may be completed in four scholastic years, or in an accelerated course of thirty-six months. Applicants must have studied chemistry or biology, physics, zoology or comparative anatomy, and the fine arts, to comprise at least ninety semester hours in a college of arts and sciences approved by the Council on Medical Education and Hospitals of the American Medical Association, and/or in a School of Fine Art approved by the Educational Division of the Veterans Administration. The School of Medicine reserves the right to require more than the minimum hours here set down for admission. Tuition and fees will be charged in conformity with tuition and fees for the School of Medicine of the University of Georgia. The course consists of the following:

- (a) Surface anatomy.
- (b) Anatomical dissection and drawing.
- (c) The study of fresh and hardened specimens.
- (d) Microanatomy and its techniques.
- (e) Lettering and presentation.
- (f) Design and preparation of charts and schemata.
- (g) Surgical procedures and reconstructions.
- (h) Techniques of medical illustration.
- (i) Mechanics and ethics of medical publishing.
- (j) Format and design of monographs and books.
- (k) History of medical illustration.
- (l) Medico-visual education and direction.

First Trimester

Student registration, 5 September, 1949. Jack Wilson, Associate Professor of Art as Applied to Medicine, and Director of Illustration; Mary P. Hallinan, Student Assistant for Art as Applied to Medicine.

STATEMENT OF FOOD AND DRUG ADMINISTRATION CONCERNING LITHIUM CHLORIDE

As a result of the radio and press announcements following the Federal Security Agency's press release of February 18 on lithium chloride, there has been widespread publicity throughout the United States and in portions of Canada.

When lithium chloride was first proposed for use as a salt substitute, the Food and Drug Administration started pharmacologic experiments to determine its safety and recommended that manufacturers likewise check the safety of the product before marketing it. Experiments in our laboratories recently showed that lithium chloride is toxic to animals. However, a large manufacturer of a lithium chloride-containing salt substitute reported that extensive clinical experiments sponsored by him showed lithium chloride to be safe for human beings, thus casting some doubt upon the applicability of animal experiments to humans.

Recently, untoward reactions in humans consuming Westsal which may have been due to lithium chloride, came to our attention and recall of lithium chloride preparations was suggested to and inaugurated by manufacturers.

On Friday, February 18, the Food and Drug Administration learned of deaths attributed to lithium chloride and public announcements of the dangers of lithium chloride were distributed immediately.

Inquiries from consumers show that salt substitutes containing lithium chloride were being used by many individuals on the advice of doctors who understood that the substitutes were harmless. At the time of the radio and newspaper publicity, these consumers in large measure had not heard of the dangers accompanying use of lithium chloride.

Consumers who have been using a lithium chloride-containing salt substitute should discontinue use immediately. If symptoms of lithium poisoning have not appeared, it is likely there will be no damage. Medical reports show that people who suffered mild symptoms of poisoning recovered when they discontinued use of lithium chloride.

In case of severe symptoms, the physician should be consulted immediately. It has been suggested that cautious intravenous administration of sodium chloride solution may be of value in treating poisoning from lithium chloride.

The symptoms of lithium chloride poisoning are drowsiness, weakness, loss of appetite, nausea, tremors of the extremities, blurring of vision and coma.

It has come to our attention that some consumers believe some brands of ordinary table salt are causing these injuries. Lithium chloride is marketed as a liquid. The granular table salt, sodium chloride, is not under suspicion.

FACTS ABOUT NEOCURTASAL GIVEN IN U. S. MAILING TO MEDICAL PROFESSION

In a nation-wide mailing recently to the medical profession, Winthrop-Stearns, Inc. informed all doctors in the United States that Neocurtasal, an accepted seasoning agent for salt free diet, "contains no lithium chloride nor any other form of lithium salt."

The letter to the profession followed recent action taken by the U. S. Food and Drug Administration and other public health agencies against lithium chloride and salt substitutes containing this ingredient. Hundreds of inquiries concerning the contents of Neocurtasal have been received since the recent seizures of lithium-containing substitutes. Here is the full text of the company's letter:

"Neocurtasal, an accepted seasoning agent for salt (sodium) free diet contains no lithium chloride nor any other form of lithium salt."

"The recent action taken by the U. S. Food and Drug Administration and other public health agencies was against lithium chloride and salt substitutes containing this ingredient. Salt substitutes as a class are not condemned. Only lithium when contained as an ingredient has been found to be dangerous or injurious.

"Neocurtasal has not been involved in any way whatsoever in the recent seizures of lithium-containing substitutes. Neocurtasal contains potassium and ammonium chlorides, potassium and calcium formates, magnesium citrate and starch. This product continues to be the product of choice for those who require a salt (sodium) free diet."

SECRETARY FORRESTAL NAMES CAMPAIGN COMMITTEE TO OBTAIN PHYSICIAN AND DENTIST VOLUNTEERS

A national campaign seeking physician and dentist volunteers for the Armed Forces began recently.

The National Military Establishment estimates that approximately 18,000 young men received, in whole or in part, their professional educations at government expense under the ASTP and V-12 programs. Of these, some 10,000 have served in the Armed Forces. The 8,000 of this group, and around 7,000 more who were deferred to continue their professional educations at

their own expense, did not see combat. They will now be asked to volunteer for a period of one or two years of service.

The drive was proposed to Secretary Forrestal by his recently appointed Armed Forces Medical Advisory Committee as a prerequisite to any resort to compulsory induction of such personnel. This committee is composed of eleven civilian leaders of the medical and allied professions and the Surgeons General of the Army and Navy and the Air Surgeon. It is headed by Charles Proctor Cooper, president of the Board of Trustees of Presbyterian Hospital in New York City, who is Deputy to Secretary Forrestal for Medical and Allied Professional Matters.

When recommending the drive for volunteers, the Advisory Committee stated that it will make a careful and continuing review of the work load of the medical and dental services and of the utilization of professional personnel to determine where economies can be made.

The campaign committee is headed by Maj. Gen. Raymond W. Bliss, Surgeon General of the Army, who will act as chairman. The other members are Rear Adm. Clifford A. Swanson, Surgeon General of the Navy, and Maj. Gen. Malcolm C. Grow, The Air Surgeon. It will report to Chairman Cooper of the Medical Advisory Committee in his capacity as Deputy to Secretary Forrestal.

The campaign committee, Secretary Forrestal said, will serve as liaison between the National Military Establishment and the American Medical Association, the American Dental Association, and other interested professional and non-professional groups.

In a memorandum to the Secretaries of the Army, Navy and Air Force, Secretary Forrestal asked that they take all possible steps to assure greatest possible success of the campaign.

The program proposed by the committee would be a cooperative effort to the medical and dental professions and the medical services of the Armed Forces. The committee pointed out that estimated shortages in the Armed Forces by the end of July 1949 will be about 1,600 physicians and about 1,160 dentists. By next December this shortage will total approximately 2,200 physicians and 1,400 dentists.

Announcing his approval of the recommendation for the campaign, Secretary Forrestal said it is designed primarily to obtain the required professional personnel from two groups of young physicians and dentists whom the Medical Advisory Committee feel owe an obligation to volunteer. They are:

1. The young men who received the benefits of the wartime ASTP (Army Student Training Program) and the similar Navy V-12 program but subsequently performed little or no service, and

2. Those others who were deferred from service during the war in order that they might complete their educations at their own expense.

Physicians and dentists are asked to volunteer for a minimum of one year and would receive \$100 a month in addition to prescribed pay and allowances for their rank.

Physicians and dentists who volunteer for service will be used, as far as possible and feasible, in assignments commensurate with their professional skills and abilities. Arrangements would be made by the services to allow individuals who volunteer at this time to finish their training periods before being called to active duty. Calls to active service would be staggered so as to cause minimum disruption to civilian hospital training programs.

LET'S GO FORWARD ALWAYS

Georgia physicians made much progress in the first hundred years of the Association's existence. We are beginning now the second hundred years, with 2,202 members and a strong determination to carry on the work in the interest of all the people. May this attitude of our members never change.

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OUR PROBLEMS AT THE BEGINNING OF THE ASSOCIATION'S SECOND HUNDRED YEARS

EDGAR H. GREENE, M.D.

Atlanta

One hundred years ago a small group of physicians met in Macon and organized our State Medical Association. The meeting was carried out with the order and decorum becoming educated gentlemen of that distant day. A constitution and by-laws was prepared and adopted and this instrument, together with the roster of charter members, has been preserved.

To go back even further, the history of Colonial Georgia records a number of physicians coming to this section with the first settlers. Almost hand in hand with the great preachers Wesley and Asbury, the pioneer doctor blazed the trail for health education and spiritual comfort among the settlers of the Colony.

In due course the Georgia Medical Society was organized in Savannah in 1804 and eighteen years later the society in Augusta had its birth. From these early groups it was not unexpected that a state-wide organization should be formed in order that all qualified physicians, regardless of location in the rapidly growing state, might be brought together for mutual benefit. Seven years, almost to the day, before that eventful March 20, 1849 in Macon, Crawford Long in Jefferson, Georgia, using sulphuric ether as an anesthetic, had performed the first

painless surgical operation.

No century in the entire annals of civilization has brought about so much progress, to make possible a happier and healthier world. Let us recall just a few of the many things that have appeared during this eventful era: the telegraph, the telephone, the marvels of wireless communication, the application of electric power to lighting our homes and doing the work of many slaves; the internal combustion engine with the automobile and airplane; the camera and phonograph, and atomic energy, not to mention the marvelous feats of engineering.

In the field of medicine, bacteria were discovered, leading to the practical elimination of typhoid and diphtheria and other infectious diseases, as well as making aseptic surgery possible. Malaria and syphilis have been brought under control. Better obstetrics and pediatrics have come about. X-ray and other laboratory procedures have put diagnosis on a scientific basis. X-ray, radium and isotopes have been applied in therapy, and miraculous drugs and antibiotics have been introduced. The surgeon of today can confidently attack problems inconceivable even when some of us present today were first graduated.

Sound and enduring progress in medical education, both before and after the conferral of the degree, and improvements in hospitals have given our country supreme eminence. Not so many years ago American students of medicine went, if possible, to Edinburgh, London, Paris, Berlin or Vienna for advanced study in Old World institutions. The United States now daily wel-

comes numbers of foreign physicians to our great medical centers, seeking information concerning the latest developments in medicine, surgery and public health.

And those of us who have visited foreign shores, whether for pleasure or in the service of our country, know that no other peoples approach our standard of living.

These achievements designed for the health and happiness of mankind are without parallel in history. They are the results of hard work, of individualism operating in a land of liberty and freedom. None of these advances resulted from lay conferences in a government controlled agency, nor were they developed under a dictatorial edict.

The Problem

As the Medical Association of Georgia begins its second century of service, it faces a grave crisis. In spite of steadfast progress in the medical profession's constant fight against disease and death, the nation is being urged to believe that the physical and mental welfare of this country is dependent upon the direction of a small lay group in Washington. The bureaucratic planners, in a word, wish our hypothetical Uncle Sam to prescribe medicine for one hundred and forty-two million Americans! These Americans are to be persuaded that they need a plan for government control and direction of all doctors, hospitals, drug stores, clinics, and medical schools. The planners are working feverishly for the enactment of Compulsory Health Legislation.

This plan of medical and surgical care with hospitalization Mr. Oscar Ewing, Federal Security Administrator, is offering the people of America as absolutely free, except for pay-roll deduction taxation upon the employee with an equal tax upon the employer. This, of course, is a scheme of political medicine, completely filled with so many disagreeable features that it is de-

nounced by doctors and laymen who are interested in the welfare of the nation.

Mr. Ewing has presented statistics that are misleading and impressive to the minds of people who are not familiar with the subject. For example, he blames the medical profession for so many rejections by the Selective Service System in World War II. He does not point out that a large percentage of these rejections was due to illiteracy, which unwise was classified by the Selective Service System as a physical defect! Just how he plans to bring about a system of education under his compulsory health insurance system is difficult to understand. He estimates that 325,000 persons now die each year who could be saved if they had the benefit of modern health and medical services. He also included in his claim of 325,000 needless deaths every year 40,000 deaths due to accidents. If he has some paragraph in his health insurance policy that will prevent a person slipping in the bath tub and breaking a leg, it will be a boon to the plumbing industry. Furthermore, just how his control of the health and welfare of this nation, with dictatorial powers over doctors and hospitals, is going to prevent automobile accidents on the highways is something we are eager to behold.

Furthermore it is an alarming fact that all the propaganda, including expensive booklets, radio time and speakers, is put out by Mr. Ewing at the expense of us taxpayers!

As pointed out early in this paper, the good health of our country is a result of the process of medical evolution. Yet here we have a group of laymen who have the temerity to assume, overnight, the medical and hospital needs of the nation and then the audacity to administer that care. It would seem much more logical for Mr. Ewing and other laymen who desire, as they claim, to improve the welfare of our people, to devote their time and attention to some

project more in keeping with their training and education. "Let the cobbler stick to his last!" Every day, in fact, every minute of the day, someone is being injured or killed on the highways of our nation. How wonderfully beneficial to our people it would be if an enthusiastic opportunist would take advantage of this situation alone and make an effort to reduce the tragedies of our highways!

More important than the fact that American medicine is engaged in a life and death struggle for survival as a free institution is that the health of the people is at stake! If the planners get their way, and compulsory health insurance is adopted, patients, as well as their doctors, will walk in government lock-step, and the quality of medical care both of the individual and of the public health will deteriorate here, as it has in every other country where politics has become a factor in medical practice. But the issue goes even beyond the health of the American people. This is a basic struggle between two warring philosophies of government.

State medical care had its origin in Germany under Bismarck in the eighteen-eighties. Later it was adopted by Soviet Russia and other foreign countries. With Great Britain's leaning toward Socialism, universal free medical service was adopted there. After a trial of nine months, Britain's system seems established. But at what a cost! Forty per cent of all incomes in Britain are taken for taxes and roughly one third of the whole government budget is expended on social services. When the health service law was enacted its cost was budgeted at \$600,000,000 a year. In fact the cost of the first nine months was \$832,000,000. About 93 per cent of the people in England, Wales, and Scotland have enrolled in the service. The handwriting is on the wall for everyone to read. We need only look at Great Britain and consider the

tragedy of the British people, who once prided themselves on their individual initiative and their great dignity as a free people. Britain, today, unless the tide is turned back, is well on the road to socializing all of its industries and professions—and when the Socialist State is complete, individual freedom is gone.

It has been demonstrated abroad that the adoption of national compulsory health insurance constitutes the most dangerous step toward ultimate regimentation of the people and the creation of a despotic, socialistic state. Socialism comes upon a people by a gradual, soporific process of lulling them into a state of well-being and happiness brought about by the promised equal distribution of the nation's wealth. In the belief that they will get something for nothing—especially medical care and hospitalization—they yield to a seemingly painless over-all taxation. If the Federal government assumes control of the nation's health measures in the form of compulsory health insurance, it is the beginning of the end of free enterprise in our country. Private ownership of property will be jeopardized. A free market will disappear. The old American heritage of profit and incentive will be a hallowed memory. Competition—the life of trade—will be strangled and the dignity of man degraded.

The essence of the American dream was described by Abraham Lincoln in 1861 thus, "The prudent, penniless beginner in the world labors for wages for a while, saves a surplus with which to buy tools or land for himself, then labors on his own account another while and at length hires another new beginner to help him. This is the just and generous and prosperous system which opens the way to all, gives hope to all, and consequent energy and progress and improvement of conditions to all."

Free men have incentive; free men can fashion their own objectives. If the Old

World contagion of compulsory health insurance is allowed to spread to our New World, it will mark the beginning of the end of free institutions in America. We will have taken one of the final, irreparable steps toward State Socialism—and it will be only a question of time until the railroads, the steel mills, the power industry, the banks, and the farming industry, are nationalized.

This is a battle to the death against State Socialism—and wherever we see the socializers making headway, whether it is in medicine or some other profession or business or industry, that should concern us too. As Henry J. Taylor has said, "It is neither moral nor just to disregard the honest, individual rights of one single man or woman or enterprise in this nation on any claim that to do so is for the good of a majority. Let Mr. Ewing lay his hand on one single doctor and he will do so to the peril of all. For if doctors can be socialized, why cannot dairymen be socialized? More people need milk every day than need doctors. Why cannot insurance salesmen or coal miners be nationalized? The number one challenge for statesmanship, in government, in business, and in labor is to safeguard from political control the independence of the professions, of business and of working people, farmers, artists, students, and doctors."

The strength and greatness of America lies in the American people—in their independence and initiative, in their urge to achieve. To preserve the American way of life, any move by government designed to destroy incentive or limit the capacity of our people must be scotched.

A prominent national group has said recently of the Administration plan: "Society is a much broader and more comprehensive concept than that of the state. The state has a definite responsibility to help protect and promote the health of the nation, but voluntary agencies have a definite right and

responsibility to exercise an important function in planning as well as executing such a program. It is not the business of the state to assume all the functions of society nor to relieve the individual of his own responsibility and deprive him of his freedom of choice."

Government *supervision* is desirable. It has a stabilizing and stimulating effect upon the citizens. Conversely, government *control* has a depressing effect upon the people and has no place in our country except in times of grave crisis. Regimentation, centralization of power, and dictatorship are Un-American and should never be tolerated in this country unless such methods are necessary in war to save our country from the enemy. When the victory is ours, the nation should return, with all possible speed, to its democratic way of life. Here remains the last real foothold of freedom in all the world. Let us defend it with our all.

The medical profession, in its fight against compulsory health insurance, cannot afford to fight alone and it need not fight alone. Already the American Bar Association, the American Farm Bureau Federation, the American Legion, the Daughters of the American Revolution, and other great national organizations have taken action condemning compulsory health insurance and supporting the medical profession's cause. As recently as April 28 the General Federation of Women's Clubs meeting in Hollywood, Florida, passed a resolution strongly condemning compulsory health insurance. Out of 2,000 delegates there were only 3 dissenting votes.

This fight being waged against government control of the nation's health is not against that alone. People from all walks of life visualize a small group in Washington in supreme command of the nation's economy, transportation, education, communications, industry, banks—eventually

everything that makes this country greatest of all among nations and the deficit brought about by government ownership or control met by a continual elevation of personal taxes. For there *will be* a deficit: Ketchum defines national health insurance as merely tax-paid medical care superimposing a fictitious insurance superstructure on a charity base. We have just gone wild on taxes and the more we are taxed, the more the tax gatherers spend.

According to the Family Economic Bureau, the Federal Government spends a million dollars every 12 minutes, which is 1,100 times the rate of a century ago. On a per capita basis, statisticians estimate that the Federal Government spends 174 times the rate of a century ago. In 1849 it was \$1.70 a year per person—in 1949 it is \$300. In the United States at the present time, $33\frac{1}{3}$ cents of every man's dollar goes to taxes.

"The power to tax is the power to destroy." A government which puts too much of a financial burden upon its people is on its way to bankruptcy. The only way to reduce taxes is to stop useless spending. Just how much taxing the American people will stand is problematical. In 1924 Lenin, god-father of the Soviet, wrote, "Someday we shall force the United States to spend itself into destruction." Mr. Hoover forcibly reminded his radio audience that we are actually at this time engaged in a cold war and upon sufficient appropriations to wage successfully this battle for our security may depend the actual survival of the nation. All political pressure on Congress at this time by ambitious self-seekers should be discontinued in the face of present danger. The time has come to call a halt!

The Remedy

Although the health of the citizens of the United States is the best in the world, there is unquestionably still room for its improvement. While Georgia is doing its share in

health education and in the recognition and treatment of diseases, it is still far from the goal toward which we must strive during the new century. At the present time it is claimed there is a shortage of doctors in Georgia. The principal trouble appears to be in the improper distribution of physicians in our State. This has been brought about by several factors. Improvement in the teaching of medical students and excellent hospital facilities for training recent graduates have deterred young doctors who normally would go into the rural districts for general practice. The tendency now is for young men to specialize in certain branches of medicine and surgery. Specialization naturally means location in a metropolitan area. There is a definite shortage of nurses in our State, as well as of hospital facilities.

The Georgia Citizens Council pointed out that last year Georgia had half as many doctors per person (1 for every 1514 people); half as many hospital beds per person (only 3 states had fewer beds per 1,000 population in 1944); and less than half as many nurses per person (1 for every 656 people), as the average in our sister states. Seventy-four counties had public health nurses; eighty-five had none.

Every section of this State should be supplied with proper hospital, doctor, and nursing care. These hospitals should be strategically located by a committee from the Medical Association of Georgia and the State Department of Public Health to prevent the erection of hospitals in poorly selected areas. Hospitals should be under the control of the medical profession in their respective localities and one should be available to every citizen, even those in the most remote areas in the State. These hospitals should be equipped to render good obstetrical service and excellent care of infants and children; they should have surgical, laboratory, and x-ray facilities to take

care of all cases but the most unusual and difficult which, if necessary, could be sent to the large medical centers.

If the medical profession and interested lay citizens arose themselves and come to the assistance of the leaders in our profession, every individual in our State in need of medical, surgical, and hospital care can receive it, regardless of his financial status. This is exactly the thing that Mr. Oscar Ewing, Federal Security Administrator, is offering the people of America as absolutely free, except for the pay roll deduction taxation upon employee and equal taxation of the employer, leaving to the mercy of the community those without funds.

Legislation has recently been passed permitting the states and counties to obtain money and assistance from the Federal Government in order to build hospitals. If these hospitals are erected in properly selected locations and thoroughly equipped, it will not only benefit the rural communities of our State but will undoubtedly draw to them many young doctors to practice medicine in a manner as satisfactory to them as to their patients.

In addition to that, we should have in Georgia the full privilege of a system of prepayment medical care insurance. There isn't any question about this: health insurance is coming in the United States. There is only one debatable question and that is, whether it is coming under compulsion, with politicians at the controls, or whether it is coming under the voluntary system, with doctors at the controls. Every man who has faced a serious illness in his family on a salary of \$3,000, \$5,000 or even \$7,000 a year wishes it were possible to have all needed medical attention and hospital care without so much financial sacrifice. He wouldn't care, if it meant having the government take over the doctors. It is our job to convince the American people of the simple truth that prepaid medical coverage is no

longer a luxury, that health insurance today has become a necessity, just as food and shelter and life insurance are necessities. This insurance feature should be on a competitive basis, whereby non-profit organizations and commercial insurance carriers would have equal rights and privileges in rendering a service to the people. The cost would be so low that every individual on any sort of productive basis could afford to carry it. It has been estimated that anyone who can afford the cost of a package of cigarettes a day could carry sufficient coverage of this type to protect him against accident and even prolonged illness. If a person cannot afford this protection, he most decidedly could not afford to have 6 per cent of his pay check retained by Washington bureaucrats for the operation of a community pill mill!

Blue Cross Hospitalization Plans, first launched in 1929, claim more than 32,000,000 members. Five years ago, Blue Cross served only about 8 per cent of the American people; today it covers more than 21 per cent. It has increased its membership by more than 14,000,000 in a little more than two years. The first voluntary, state prepaid, medically sponsored medical care plans were launched in 1939. Today there are ninety-two separate plans, with 10,000,000 members, in the United States. These plans are approved by the American Medical Association and the individual State Medical Associations. The commercial companies report more than 20,000,000 Americans insured under their hospital programs, and, in addition to these, there are scores of industrial, fraternal, and private group clinic plans in operation. All in all, there are some 52,000,000 people in this country who have endorsed voluntary health insurance and these people join with the medical profession in urging that we keep politics out of medicine. There is nothing that government can do for the American

people in the field of health insurance that they cannot do better and more economically for themselves. In their unending fight against disease, the doctors of this country are constantly saving human lives. They now have the responsibility of coming to the aid of our American way of life at a time when it is seriously threatened and when the hope of liberty-loving people all over the world may well depend on the outcome!

The cost of medical care has been most thoroughly debated, from the Federal tax level to the voluntary prepayment plan cost of cigarette money. Where in this picture does the doctor come in? The private practitioner is a business man as well as a professional man engaged in service above self. While he cannot be primarily concerned with his financial remuneration, he is entitled to his hire as well as spiritual rewards. He assumes life-and-death responsibilities and may work sixty to eighty hours a week. With full recognition of these facts, I nevertheless wish to leave with you the impressive warning of Dr. Ralph Cooper Hutchison: "A profession must be devoted to some great human service, quite regardless of remuneration. This service must go on, pay or no pay. Many members of any true profession are, always have been, and always will be, underpaid. There will be no economic reorganization of society by which this will be changed,—Communism, Socialism, or anything else—and when a profession gives precedence to the financial returns of its members, over and above imperative service to humanity, it then ceases to be a profession."

Despite the fact that just now the physician, the surgeon, and the specialist seem to be "in the money," there is ample evidence that many are underpaid and that financial remuneration has not pre-empted first place in the organized objectives of the medical profession. With few exceptions, medical

men are still serving, quite regardless of the patient's ability to pay. But the medical profession is being tempted in this age, tempted to organize and alter this situation so that any qualified man entering the profession shall have a living wage assured him and shall have complete economic security. In the name of the country doctor who gave his life without material reward, in the name of the always underpaid professions of service, I plead now that you resist this savor of the fleshpots and the clinking of silver and, as a true profession, maintain the saving of human life, the alleviation of suffering and the healing of mankind as the main objective of the Medical Association of Georgia on its One Hundredth Anniversary.

THE DETECTION OF EARLY CANCER BY MEANS OF PERIODIC EXAMINATION

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A few weeks ago, at the opening dinner of the fund-raising drive of the Philadelphia Division of the American Cancer Society, the principal address was given by a great industrial research scientist, Charles Kettering of General Motors fame. In the course of his remarks, Mr. Kettering said, "Instead of one cause of cancer, there may be many causes of cancer and it may take fifty years before all these causes are discovered. During those fifty years and in all probability thereafter, the early detection of cancer will continue to be one of our greatest weapons in the control of this disease."

The early detection of cancer seemed a little nearer on Easter Sunday of this year when we read in the morning papers the

announcement of a successful blood test for the diagnosis of this disease. This announcement was based on a report made by Dr. Charles Huggins of the University of Chicago at a meeting of the American Association for Cancer Research held in Detroit. I regret that I was unable to attend this meeting but I have talked with Dr. Ralph Jones of the University of Pennsylvania, who was there.

So far as I, a clinician, could understand a research scientist, the test is based on quantitative differences in the heat precipitation of the proteins of the blood as influenced by a chemical substance called iodoacetate.

Dr. Jones told me the test was found positive in two small skin cancers. It was positive in all cancers tested (about 100) except three cancers of the prostate that were regressing after castration. The test was negative in non-cancerous individuals except in cases of tuberculosis, pneumonia and other febrile diseases. Dr. Jones is using the test at the University of Pennsylvania Hospital with encouraging results. He warned against false interpretation of findings—against the tragedy of false positives and the equal tragedy of false negatives. I gathered he is of the opinion that the test will eventually prove useful in eliminating from the waiting list of cancer detection clinics a group of patients in whom the test is negative.

While determined and patient research workers continue their investigations of this and other important discoveries in the laboratory, equally determined but probably less patient clinicians must continue their efforts to detect early cancer in office and clinic.

It has been well said that "the cure of cancer is a race against time". The possibility of cure rests upon the fact that cancer begins as a localized area of disease. The chances of curing cancer by means of radi-

cal surgery, high voltage x-ray and large doses of radium depend upon how early these remedial measures are applied—depend upon detecting cancer while it is a small and strictly localized area of disease. This is what is meant by early detection. It is no easy matter.

From the standpoint of early detection, cancers are divided into accessible cancers and inaccessible cancers. Accessible cancers are those that can be discovered by the examining physician before symptoms develop that attract the patient's attention. Generally speaking, these include cancers of the skin, oral cavity, breasts, genital organs and rectum.

Inaccessible cancers are those located where they cannot be detected by the ordinary methods of physical examination. These are seldom discovered before they produce symptoms that attract the patient's attention. They include cancers of the brain, lung, stomach, intestines, kidneys, and bladder.

The first systematic cancer detection examinations in this country were made by Dr. Elise L'Esperance at the New York Infirmary for Women and Children. Following the 1937 fund-raising drive of the American Cancer Society, many women telephoned this hospital asking for a "Cancer Examination". To meet this demand, Dr. L'Esperance established a Cancer Prevention Clinic for the complete physical examination of presumably well women with especial reference to cancer. The success of this venture led later to the establishment of two similar clinics at the Memorial Hospital, New York City, under Dr. L'Esperance's control. Eventually Dr. L'Esperance and her sister were able to erect on the grounds of the Memorial Hospital a beautiful, fully equipped building as a memorial to their mother—the Kate Depew Strang Memorial Cancer Clinic. This clinic now functions as a diagnostic clinic as well

as a detection center.

As a gynecologist, my entry into the field of cancer detection came via the easy route of pelvic cancer. My associates, Dr. Margaret C. Sturgis, Dr. Faith Fetterman, and I in the Department of Gynecology at the Woman's Medical College of Pennsylvania were disappointed with the results of our treatment of cancer of the cervix. In a small group of cases we obtained 39 per cent of five-year arrests. We thought we should do better. We noted that the favorable results were obtained in early cases, Stage I and II, while there were practically no five-year arrests in Stage III and IV.

For years we had been cooperating with the educational efforts of the American Cancer Society. For years we had been telling patients, friends, club women, etc., of the possible serious significance of bleeding between periods or after the menopause. Undoubtedly, women with cancer were coming earlier than they did when I began to practice in the "gay nineties;" (then cancer of the cervix meant a massive cauliflower growth or a deeply excavated crater) but they still did not come early enough. Women would walk into the office or clinic seven days to seven weeks after their first symptom and examination would reveal Stage II or Stage III cancers of the cervix.

This led us to conclude that the best way to detect early pelvic cancer might be by the routine examination of presumably well women before symptoms appeared.

Eleven years ago, in the spring of 1938, we established at the Woman's Medical College of Pennsylvania a research clinic for the detection of pelvic cancer in an early and curable stage and for the detection of conditions commonly believed to predispose to cancer.

By means of appeals to former patients, friends, club women and the public at large we enlisted the interest of the women of Philadelphia in our project. Eventually

1,319 white women, 30 to 80 years of age, presumably well, volunteered to come for examination twice a year for five years.

We kept our examinations simple so that they might be duplicated by any physician in any part of this country. After taking a brief gynecologic history, a careful bimanual pelvic examination was made. This was followed by a careful inspection of the cervix in a good light. At first we used the Schiller test. At first we recommended an occasional biopsy. We gave up the Schiller test because we found that, in a good light, it was as easy to detect diseased areas without the iodine stain as with it. As we became more convinced of the potentialities of the diseased cervix, we recommended removal of the entire diseased area, erosion, etc., rather than biopsy. We did not use the Papanicolaou vaginal smear test.

In the first examination of our 1,319 volunteers, four early cancers of the uterus were discovered, three of the cervix and one of the body of the uterus. Two of the cancers of the cervix were discovered on microscopic examination of areas of erosion removed by excision. Cancer had not been suspected. The third cancer of the cervix was discovered on biopsy of a large and suspicious looking area of papillary erosion. These women were promptly treated by radium and show no signs of recurrence after ten years. The cancer of the body of the uterus was discovered by diagnostic curretage.

At the end of the five-year period we were able to report, at the meeting of the American Medical Association in June, 1944, on 545 continuing volunteers. We were asked to continue the research. The physicians and most of the volunteers were eager to do this.

At the end of ten years, a report was made at the meeting of the American Medical Association in June, 1948, on 732 continuing volunteers.

During the entire ten-year period, eight pelvic cancers were discovered by the examining physicians. These include the three original cancers of the cervix and a fourth cancer of the cervix discovered on the eleventh visit of a volunteer. This was a polypoid adenocarcinoma the size of a cherry projecting through the external os. They include the original cancer of the body of the uterus and a microscopic cancer of the endometrium discovered in a myomatous uterus removed by supravaginal hysterectomy after the seventh visit of a volunteer. They include one malignant cyst of the ovary discovered on the ninth visit and one cancer of the anterior vaginal wall discovered just before the fifteenth visit of another volunteer.

In addition to the cancers, from the beginning of the research to date, some 868 benign lesions of the pelvic organs were discovered. These include 489 inflammatory lesions of the cervix—cervicitis and cervical erosions—which are generally believed to predispose to the development of cancer of the cervix. Some 214 of these inflammatory lesions have been eliminated by cauterization, conization or surgery. The examining physicians believe that the low incidence of cancer of the cervix in our group can be attributed to the elimination of these inflammatory lesions.

Since January, 1942, we have also examined the breasts of the volunteers. We can report on 758 women who have come more or less regularly twice a year over this seven-year period. Seven cancers of the breast were discovered. Each of these was discovered by the volunteer herself—three in five months, two in six months, one in eight months, and one twenty months after a research physician had examined her breasts and reported "no breast pathology". These cancers varied in size from a lump 0.5 cm. in diameter at the upper outer periphery of the breast of one volunteer to a

lump 2 x 3 cm. in diameter close to the areola of the breast of another volunteer. The axillary lymph nodes were involved in two cases.

These findings can be explained in two ways:

1. The cancers were not present when the examining physicians reported "no breast pathology".
2. The cancers were present in the breast at the time of the negative report but were too small to be detected by the examiners.

In other words, a breast cancer can develop from something impossible to detect into a lump easy to detect in less than six months. The practical conclusion to be drawn is that women should be taught to examine their breasts themselves once a month. This examination should consist in gently pressing each breast against the ribs with the fingers of the opposite hand, held flat. Any lump that may be discovered should be reported at once.

We are now telling our volunteers, and our private patients as well, to examine their breasts once a month. Some accept the suggestion with equanimity. Others say, "I should be afraid to do that". This self-examination procedure does not rule out the need for the periodic, every six months examination of the breasts by the physician. The latter is important because it alerts the woman to the possible significance of lumps in a breast. It brings her back at a definite time for the examination of any lump that she may have discovered herself but might be inclined to overlook.

The sad fate of one of our volunteers brought home to me the importance of an annual x-ray of the chest. One morning a very perturbed and rather angry gentleman was ushered into my office. He told me his wife was one of our research volunteers. She had been examined in December and told she was "all right". In January she had begun to cough. In March she had an x-ray study of her chest which showed advanced cancer of the lung. I told him how much I sympathized with him, explained

to him that our research examinations were limited to certain parts of the body which did not include the lung. I happened to say that lung cancer was on the increase and that the only way to detect it early was by means of an annual chest x-ray. Quick as a flash he turned on me and said, "You ought to tell your women that". I could only agree with him. Since then we advise our volunteers to visit the office of the Tuberculosis Society where an annual microfilm of the chest is made without charge.

I trust this account of our Cancer Research Clinic at the Woman's Medical College of Pennsylvania may interest those of you who are working along similar lines. Periodic examination for the detection of early cancer is something relatively new under the sun. The subject presents many problems that only time and the accumulated experience of many workers can solve.

Among the debatable questions are: What age groups shall be examined? How extensive shall the examination be? Shall they be a part of a general health examination? Where shall the examinations be made? In hospital clinics? In physicians' offices or elsewhere? Who shall make the examinations?—Resident physicians? General practitioners? Groups of specialists? How much shall the examinee pay? Should all or part of the cost be subsidized by the American Cancer Society?

According to a report recently received from the office of the American Cancer Society, there are now about 211 Cancer Detection Centers in this country. These are distributed among thirty-eight states and the District of Columbia. I was glad to see three centers listed in your State of Georgia, including one in the City of Savannah. Eleven states of the Union have no clinics listed.

At the recent cancer conference held in Memphis, a panel discussion on Cancer Detection Centers was characterized by great

enthusiasm and by a certain amount of confusion. Physicians from many different parts of the country described their detection centers and reported the percentage of cancers discovered in them. This varied from 0.5 per cent to 40 per cent. The physician reporting the 0.5 per cent incidence was very apologetic. The physician reporting the 40 per cent incidence was not at all apologetic although it was evident that he was conducting a diagnostic clinic rather than a detection center. He stated cheerfully that no one was ever turned away whether they had symptoms or not. The number of cancers reported from centers limiting their examinees to presumably well individuals averaged less than 1 per cent—between 0.8 and 0.9 per cent approximately.

Among further benefits to the credit of these examinations must be listed the discovery of many benign lesions. These include that somewhat uncertain category of "lesions predisposing to the development of cancer"—cervical erosions, rectal polyps, leukoplakia, etc. Such lesions were reported in 15 to 25 per cent of the examinees in different clinics.

The attempt to increase the yield of cancers discovered takes two forms. Some recommend limiting the examinations to age groups in which cancer occurs most frequently—over forty for example. Some recommend limiting the examinations to the five accessible and most productive areas—skin, oral cavity, breast, pelvis and rectum.

Others meet the challenge by endeavoring to develop new methods that may make possible the early detection of inaccessible cancers.

Thus a simple color test for blood in the stools has been developed that any physician can make in his office while the patient lies on the examining table.

Dr. Wangensteen and his associates in Minnesota have developed a method for the detection of early cancer of the gastrointestinal tract. The examinee eats no meat for three days, at the end of which time the stool is examined. The presence of blood is considered presumptive evidence of cancer somewhere in the gastro-intestinal tract and indicates complete x-ray and other studies.

Dr. Papanicolaou's smear test is being extended to the detection of bronchiogenic and urinary tract cancer.

Dr. Katherine Boucot and Dr. David Cooper of the Philadelphia Tuberculosis and Health Association have made 46,310 screening chest films. They report an incidence of "infiltration suggestive of neoplasm" in two-tenths of one per cent of these examinees. They recommend that these cases without cough or expectoration should be further investigated from the standpoint of malignancy.

An attempt is being made to detect early cancer of the stomach by recording differences of electrical potential in the gastric juice. Dr. Jonathan Rhoads of the University of Pennsylvania tells me that the apparatus required costs about one thousand dollars and that a well trained technician could make the tests. He believes this method may make it possible to screen out those individuals who should have extensive investigations made.

In Pennsylvania, there are about thirty Cancer Detection Centers. Practically all of these are conducted in hospital clinics. Five are sponsored by the Donner Foundation. Others are sponsored by divisions of the American Cancer Society. Others are sponsored by the hospitals in which they operate. The fee paid by the examinee varies from five dollars to twenty-five dollars. In five large centers in Philadelphia, the cost per examination has been estimated as less than twenty dollars.

Recently the Cancer Commission of the Medical Society of the State of Pennsylvania has prepared a "Minimum Standard Cancer Detection History Form". This includes one page for social, genetic and industrial history which the examinee can fill in. It includes a page and a half of system review which the examinee can fill in with a little help. It includes a page for physical findings—only positive findings to be checked—this takes about twenty minutes of the physician's time. The last page is for laboratory work and x-ray findings. The minimum laboratory work requested includes microscopic examination of the urine for red cells, a hemoglobin estimation, a red and white cell count and an annual x-ray of the chest.

A summary card with the examinee's initials and number is to be sent to the office of the Cancer Commission at Harrisburg. This reads:

Cancers detected.
Conditions predisposing to cancer detected.
Other significant findings.

These forms will be distributed to Cancer Detection Centers and to physicians willing to make these examinations in their offices. The physician will be asked to give each of his patients, thirty years of age and over, a cancer detection examination once or preferably twice a year.

The Cancer Detection Center was, in a sense, a trial balloon. Its value having been demonstrated, the responsibility for the cancer detection examination now rests with the general practitioner. This important member of the profession is perfectly competent to make this examination which will take about twenty to thirty minutes of his time.

The examination should be made on an appointment basis. The fee to be charged should be at the discretion of the examiner. Certain physicians in rural Pennsylvania are willing to make these examinations for the price of an insurance examination or

life extension examination; namely, five dollars. In metropolitan areas the charge ranges from ten to twenty-five dollars. The laboratory and x-ray studies required may or may not be included in the original charge.

It does not seem too much to ask the general practitioner to make a Cancer Detection Examination once a year on each of his patients thirty years of age and over.

Unfortunately, the general practitioner does not seem very eager to accept the challenge. The responsibility for his indifference rests upon the present methods of medical education — undergraduate and graduate as well.

When the medical schools of this country devote as much time to teaching the beginnings of cancer as they now devote to teaching its late stages, more general practitioners will be interested in making cancer detection examinations.

From this rather informal presentation of a very important subject, certain conclusions may be drawn.

Conclusions

1. A small number of early cancers can be detected by means of the periodic examination of presumably well persons.

2. At the present time this is the only method universally available for the detection of early cancer.

3. Periodic examinations for early cancer should be a recognized function of every general practitioner or should be allocated to physicians willing to make these examinations.

PHYSICIANS EARN MORE BY WORKING FOR SELVES

Independent physicians net 43 per cent more income than do doctors on salary, according to a nationwide survey conducted by Medical Economics, national business magazine for physicians.

Average net income received in 1947 by independent practitioners was \$11,300; by their salaried colleagues, \$7,914, reports the magazine in its May 1949 issue.

"More than half the salaried men have been in practice less than ten years, as against 37 per cent of independent physicians," the survey reveals. Ten per cent of all active, private physicians get more than half their income from salaries.

CARCINOMA OF THE BREAST *A 15-Year Survey of 205 Cases*

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and

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Macon

In October 1938, and again in October 1941, one of us (T. H.) published surveys of the cases of cancer of the breast that had been treated in previous years by him and by the late Dr. C. C. Harrold. The present paper is a continuation of that series of cases and deals with a consecutive group of cases seen in private practice and in the State Cancer Clinic between the years 1931 and 1942, inclusive. This group comprises 205 cases, all of them treated at least five years prior to our follow-up studies made in 1947 and 1948.

In looking over these records it is apparent that we dealt with an exceptionally advanced group of cases. Table 1 shows the distribution of cases as judged by clinical degree of advancement.

Group	205 Cases of Carcinoma of the Breast			
	I	II	III	IV
Number	13	33	70	89
Per cent	6.3	16.1	34.2	43.4

Dealing with such an unfavorable group of patients, it is only to be expected that the results would be correspondingly disappointing. Last year Dr. C. H. Richardson, Jr., of Macon, looked up the first 25 consecutive cases of carcinoma of the breast that were admitted to the Macon Cancer Clinic after the inauguration of the State-aid policy in 1937 and 1938, and then looked up a similar consecutive group of 25 cases seen in the same clinic in 1947. Following is a tabulation of these cases.

	TABLE 2	
	Carcinoma of the Breast	
	1937 Series	1947 Series
Race:	White	14
	Colored	11
Average duration of disease	18 mos.	12 mos.
Considered operable	8 or 32%	14 or 56%
Radical mastectomy	6 or 24%	14 or 56%

The difference in these two groups is

most striking and we feel can be accounted for only on the basis of the educational campaign that has been carried on in the last ten years by the American Cancer Society and through the medium of the splendid system of state supported cancer clinics which are scattered throughout Georgia. Patients in general, and their doctors in particular, are now sending cancer cases to these clinics in a much earlier stage than they did formerly.

Going back to the group of 205 cases which were treated between the years 1931 and 1942, inclusive, the number of 5-year survivals in each group is tabulated below.

TABLE 3
Carcinoma of the Breast

Group I	47%
Group II	27%
Group III	15%
Group IV	3.2%

The only comment on these results is that the percentage of the survivals in the Group I cases is disappointingly low and is difficult to account for except that the group itself is so small as to be scarcely representative. If Groups I, II and III are considered together, it is found that 26 per cent survived five years or longer, which really indicates the curability of operable cases at the present time.

We were surprised in following up the supposedly hopeless Group IV cases to find that two out of this group are now living and apparently well more than five years after they were first seen. Three others lived five years and later died of cancer, one lived five years and died of some other disease, and one is living now, more than five years, but with evidence of disease. Although this salvage is extremely low, it does show that something can be accomplished in the worst group of cases. This is accounted for in part by the extremely low rate of growth of some types of cancer of the breast, particularly in older women. Following is a short case report to illustrate

this fact.

H. H., aged 70, colored female, married, first seen June 27, 1941, Macon Cancer Clinic.

The patient first noticed a small lump in her left breast six months ago. This had grown rapidly.

The entire breast was replaced by a tumor which had broken through and ulcerated. There were several huge glands in the axilla which were freely movable. There was a definite inflammatory or neoplastic edema and redness of the skin on the mesial side of the breast extending over to the tip of the sternum. There were no palpable glands above the clavicle, and x-ray of the chest showed no metastases. In view of the extensive local involvement and the large size of the axillary glands, it was felt that this was a Group IV case and inoperable. The patient received a heavy cycle of x-ray therapy to the breast and axilla from May 27, 1941, to June 18, 1941.

At Aug. 1, 1941; the ulceration previously noted had healed completely but a nodule about 3 cm. in diameter was still present underneath the skin in the lower mesial quadrant of the breast. There was marked radiation reaction in the skin with pigmentation. There was one gland 2 cm. in diameter still present in the axilla. No treatment was given.

We feel that the decision as to radical mastectomy should be made before x-ray therapy is given and that in cases of this kind it is a mistake to perform a radical mastectomy at a later date after regression has taken place if the case is definitely inoperable to begin with. We have tried this in the past with almost uniformly unsatisfactory results and apparently the life of the patient has been shortened by cutting through tissue that was known to be involved at the time of the original examination.

At April 21, 1942: the tumor had increased in size and on examination measured about 5 cm. in diameter. There were no obvious skin metastases. There were several hard, shotty glands still present in the axilla. After prolonged discussion in the clinic, it was decided that she should have a simple mastectomy in order to avoid recurrence of ulceration.

The patient did not return for the simple mastectomy until July 20, 1942. Simple mastectomy was done widely and primary closure was impossible and the defect was covered with pinch grafts. Pathologic report showed "anaplastic medullary adenocarcinoma with extensive necrosis". The patient was examined in the clinic July 22, 1942, and showed no evidence of local recurrence or metastases and was in excellent health at the age of 78 years.

During the period covered by the foregoing report, as always, it was felt that radical surgery was our best single method of treatment. However, during a period of three or four years pre-operative x-ray therapy was used in a number of operable cases and an effort will be made to appraise the value of this procedure. The inactivation of breast cancer is most striking in many cases and it was felt that operation on an inactive growth should offer the prospect of better results than operation upon the active one. The two chief objections to this method are:

1. A few patients fail to return for radical surgery or cannot be persuaded to have it after subsidence or

disappearance of the growth. This is a valid objection but it usually reflects the surgeon's failure to explain the situation to the patient before beginning x-ray therapy and obtaining her confidence and acceptance of the overall plan.

2. The operation is slightly more difficult technically, and wound healing is frequently retarded by pre-operative x-ray therapy. This is a valid objection but not an important one if it can be shown that final results are better.

The method has not received general acceptance and numerous surgeons have presented evidence to show that it is of little value. However, most x-ray therapists still believe that the most logical time for the use of x-ray therapy is before operation and there are papers by responsible men, notably Pfahler¹ of Philadelphia, which show a definite increase in the 5-year cure rate. Surgeons are quite loathe to refer patients elsewhere and prefer immediate operation on all cases which are technically operable.

In our series there were 42 patients who had pre-operative x-ray therapy followed by radical surgery. Eighteen of these patients lived five years or longer. This represents 42 per cent of the cases so treated, all of which fell in Groups II, III and IV and is a great deal better than the overall cure rate for these same groups which amounts to only 14 per cent.

For comparison it was noted that 26 patients had radical operations followed by post-operative x-ray therapy. Seven of these lived five years or longer, which represents a cure rate of 27 per cent as compared with 42 per cent in the group that was treated by pre-operative x-ray and is to be compared also with the overall cure rate for these groups of only 14 per cent.

Although admittedly these two series are too small for final determination of the value of pre-operative x-ray, the difference seems to us striking and of real significance.

As is true with most things, it seems to us as a result of the study of this group of cases, that the best course is a middle one between the extremes. It is difficult to set up absolutely comparable series of cases in a disease so diverse in character as is

carcinoma of the breast. Statistical studies are of great value in medicine but they do not always tell the whole story, and much is to be learned by observation of individual cases over a long period of time. For instance, there are two cases of inflammatory carcinoma of the breast which had pre-operative x-ray followed by radical surgery which have lived 15 and 9 years respectively without recurrence. Ordinarily these cases are considered hopeless. It is also noteworthy that of six Group II and Group III cases now living and well 10 years or longer, five had pre-operative x-ray therapy.

At present we use pre-operative x-ray therapy in a selected group of cases that are rated as Group III and of doubtful operability and in young women with active growths of a high degree of malignancy. It seems to us that our salvage in cases of these kinds is definitely greater than we have experienced in the past. Because of the objections alluded to above, we rarely use it in the clearly operable Group I and Group II cases at the present time but post-operative x-ray therapy is routinely used.

Another question that arose toward the end of this series concerns the value of surgical removal of the ovaries or sterilization by x-ray therapy. This procedure has been strongly advocated by the Horsleys of Richmond, but their papers have failed to convince many doctors^{2,3}. We have followed this suggestion in a small number of cases in young women in whom the prognosis seemed particularly bad because of their age or recent lactation or other factors. In this selected group our impression has been favorable as several are living five years or more. It seems doubtful that this is of absolute curative value but in view of the well-known but temporary response of some cases of metastatic cancer to destruction of the ovaries, it seems a justifiable assumption that latent and undetected metastasis would be suppressed or delayed also.

If the withdrawal of estrogens, such as occurs when the ovaries are destroyed, exerts a favorable or retarding influence upon the growth of carcinoma of the breast, it would seem that stimulation of breast tissue and carcinoma with an excessive amount of estrogen might be enough to precipitate carcinoma in a susceptible breast or produce more rapid growth of an existing carcinoma. Many gynecologists deny that the judicious use of estrogens during the menopause is dangerous or that the incidence of cancer of the breast is increased by its use. Unfortunately, estrogens are not always judiciously used and it is a common occurrence to see women who have been given estrogen over a period of years and who have developed painful, nodular breasts and occasionally with bloody discharge from the nipple, indicating the development of intraductal papillomas which are known to be the forerunners of cancer in an appreciable per cent of cases. Two cases of carcinoma have been observed in women who have received estrogens over a period of years. In our view, the excessive use of estrogens is potentially dangerous and is to be condemned.

In recent years the use of testosterone as a palliative procedure in advanced cases has been of real value. We have seen pain relieved and metastatic masses markedly reduced in size. The effect is quite similar to that obtained by destruction of the ovaries. Frequently one procedure is of value when the other fails. Both are well worth a trial.

Recently reports have appeared in the literature advocating the use of large doses of estrogens for palliative benefit in carcinoma of the breast. Although this seems to us a thoroughly illogical procedure, we have tried it in a few cases but have yet to see any benefit derived from it and at the present time have abandoned its use.

Although cure should be our ultimate

aim in all treatment of cancer of the breast, we think that palliative treatment of this disease should not be neglected or overlooked. Much can be done to alleviate the suffering of these women and prolong their lives in relative comfort for several years. A simple mastectomy wisely done for the removal of a fungating, ulcerating breast is greatly appreciated by the patient. Many ulcerated breasts can be made to heal for periods of from one to five years by heavy doses of x-ray. The patient then lives in comfort and without offense to others until the inevitable distant metastases bring an end to the picture. The pain of metastases, especially in the bone, can be markedly alleviated by x-ray therapy over the bone involved or over the ovaries. We quote a brief case report below which we think emphasizes the extremely slow rate of progress of some cases and also what may be accomplished over a period of years by use of various agencies for palliation:

Mrs. A. H., aged 49, white female, married, first seen August 19, 1938.

Patient first noticed a lump in the left breast in 1936. She was treated elsewhere with some "serum" in 1937.

There was a tumor 5 cm. in diameter attached to the skin in the outer portion of the left breast. There were several moderate sized, movable glands in the axilla. She was classified as clinical Group III.

From August 22, 1938 to September 20, 1938, she had pre-operative x-ray cycle to breast and axilla, 8000 R. total.

At November 30, 1938 the mass in the breast was one-third the original size and axillary glands were small and hard. There was marked skin reaction with scarring present.

At January 20, 1939 radical mastectomy was done.

Pathologic examination showed small nests of carcinoma cells embedded in dense fibrous tissue. Wound healing was slow.

At March 12, 1940, small nodules in the skin near the umbilicus and right deltoid region were noted but not thought to be metastases.

At June 13, 1940 a rapidly growing mass was found in the right breast. A nodule in the abdominal wall was excised and found to be a metastasis. X-ray therapy was given over the abdominal and deltoid areas and to right breast and axilla.

At September 1, 1940 there was marked regression and fibrosis of all masses. X-ray of the chest was negative.

On June 16, 1942, the mass in the right breast was no longer palpable. More x-ray to the right deltoid region was given because of reactivation. X-ray of chest showed questionable metastasis to left upper ribs.

On March 11, 1943 more x-ray therapy was given to the right deltoid area. Other areas quiescent.

On March 21, 1944 all areas quiescent.

On November 20, 1945 more x-ray therapy over the

right deltoid area.

On June 4, 1946 the patient stated she was feeling better than in several years and that she was able to carry out her usual duties and activities.

On August 20, 1946 the patient returned with bladder symptoms. Cystoscopy disclosed a massive carcinoma of the base of the bladder. A pelvic cycle of x-ray was given.

On January 7, 1947 bladder symptoms relieved. There was marked fibrosis in the base of the bladder. More x-ray was given to the deltoid area because of increase in size.

On February 17, 1948 the patient was hospitalized elsewhere because of abdominal masses and vomiting. She was given 27 doses of testosterone with relief of symptoms and marked shrinkage of tumor nodules in all parts of the body.

On January 6, 1949 the patient has been given testosterone for the past year and enjoyed remarkably good health until she had a pathologic fracture of the right humerus in November 1948. This was splinted and has united. X-ray did not show definite metastasis in this bone. Fracture may have been caused by excessive radiation in that area. Evidence of masculinization was present.

On March 15, 1949 the patient's general condition was quite bad and she no longer received relief from testosterone.

It has been 12 years since this patient first found a lump in her breast and nine years since she had proven multiple distant metastases. She had a favorable response to all types of treatment.

In view of the fact that patients are now coming to us in much earlier stages of the disease, we are convinced that our results in the next 5 or 10-year period will be far superior to those reported today. This is one of the encouraging facts in an otherwise gloomy picture.

Summary and Conclusions

1. A consecutive series of 205 cases of cancer of the breast treated between 1931 and 1942, inclusive, has been reviewed and analyzed.

2. Pre-operative x-ray therapy is of definite value in the treatment of cancer of the breast when axillary glands are definitely involved, or the disease is of borderline operability in other respects.

3. Cases are reporting to our clinic in an earlier stage of the disease now than they did 10 or 15 years ago.

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NOTE: Dr. Eugenia Etheridge was of great assistance in the follow-up work and assembling of the statistical data for this paper during the summers of 1947 and 1948 while still a student at Long Island Medical College. She receives her degree in medicine in June 1949.

PRESENTATION OF A PORTRAIT OF CRAWFORD LONG TO FULTON COUNTY MEDICAL SOCIETY BY DR. THOMAS JEFFERSON COLLIER

A very happy and memorable event took place on Doctors' Day, March 30, in Atlanta, when Dr. Thomas Jefferson Collier, of Atlanta, presented to the Fulton County Medical Society a handsome oil portrait of Crawford W. Long, discoverer of ether as an anesthetic, and a member of the Medical Association of Georgia. The portrait was painted by Lewis C. Gregg, of Atlanta, and represents Dr. Long as he was at the age of 26, when, in Jefferson, Georgia, March 30, 1842, he administered the first ether anesthetic for a surgical operation. The operation was the excision of a sebaceous cyst from the neck, and the patient was James Venable, of the Venable family of Stone Mountain fame.

Dr. Collier was an appropriate physician to make this presentation, since he himself is a pioneer in Georgia in anesthesia specialization, always an admirer of Crawford Long, and a strong advocate of his priority in the discovery of anesthesia. Dr. Collier is a native Atlantan, and an alumnus of Emory University School of Medicine. He was first medical anesthetist to the Wesley Memorial Hospital, which later became Emory University Hospital, and then he became chief anesthetist to the Piedmont Hospital, which position he held until 1947, when he retired. He was president of the Southern Medical Association of Anesthetists, and presided over the meeting in Dallas, Texas, in 1925; was president of the Associated Anesthetists of the United States and Canada; and was chairman of the Section on Anesthesiology of the American Medical Association in 1942, the centennial year of Long's discovery.

The fact that Dr. Collier was honored by these high offices shows the esteem in which he is held by his fellow anesthetists. His high character and capability as an anesthetist have been no less regarded by the medical profession of the State, and especially by the surgeons and



Observing Long's portrait are Dr. F. K. Boland (left), Dr. T. J. Collier, Miss Kathryn Kligore, and Mr. Lewis Gregg.

patients whom he has served so well and faithfully.

Dr. Calhoun McDougall presided over the exercises of the unveiling, and Dr. Frank Boland made the presentation speech. After a few modest words by Dr. Collier, the portrait was unveiled by his granddaughter, Miss Kathryn Kilgore. Dr. Steve Brown, president, accepted the gift for the society, with words of appreciation and thanks.

FRANK K. BOLAND, M.D.

CANCER NEWS

Some few weeks ago the newspapers of the nation and of the State of Georgia were filled with references to a "new test for the discovery of cancer." Much-to-do was made of the announcement and, of course, medical as well as lay interest was considerably stirred up. Telephone calls came from people who wanted to know when and where the test was available, and what the cost would be. The local newspapers, at least one of them, had several news photographs made in the laboratory of a local hospital showing the technicians at work performing the test! However, as is often with dramatic medical things in the news, inquiry failed to find any place where the test could be performed at the present time.

A letter to the American Cancer Society in New York soon brought a copy describing the "new test" under discussion. It is now felt that it would be of interest to tell just what the test is about, and what it has to offer as a diagnostic aid in finding cancer, feeling that by doing so we can keep down much unnecessary inquiry and apprehension.

The test deals with the thermal coagulation of serum proteins in cancerous blood, using the iodoacetate index in measuring the abnormality. It appears that numerous investigations have indicated that serum from man and animal with malignant tumors contains lowered total proteins and a low albumin-globulin ratio, thus it would seem that the deficiency of serum proteins might be recognized by defective coagulation when subjected to heat.

With those principles in mind, and with a review of contributions to the subject made by Toennies, Ehrentheil, Luger, Weltman, Black and Bolker, and others, Drs. Charles Huggins, Gerald Miller and Jensen, of the University of Chicago, proceeded to evolve a test that might be useful as a diagnostic aid in detecting cancer.

First, one must do albumin-globulin and total protein determinations, which are not easy or quick determinations to perform. The test then calls for blood serum from a suspected cancer patient to be treated as follows: eight test tubes are set up; 10x75 mm. tubes are used, and to each is added serum: 0.15, 0.18, 0.2 and 0.33 ml. and the volume made up to 1 ml. with M/15 phosphate buffer, 0.85, 0.82, 0.8, 0.67 ml., etc. The contents are thoroughly mixed and placed in a hot water bath and boiled for 30 minutes.

The lowest percentage of serum which coagulated is the end point, and the final calculation is made by using the formula: $0.2/1.0 \times 6$ Gm. per 100 ml. These components are then carried out to determine the relationship between increasing amounts of serum and varying amounts of iodoacetate dissolved in a phosphate buffer, and the iodoacetate index is determined. For complete detailed technic to clarify the method one is referred to: *Cancer Research*, Vol. 9, No. 3, March 1949.

Dr. Huggins and his associates made determinations or tests on 233 persons, using blood serum, and found that 96.6 per cent of the patients with cancer had an iodoacetate index of less than 9. They further concluded that there is a qualitative defect in serum proteins which may be identified by thermal coagulation tests; however, they feel that the defect is not a specific one, and they found similar serum defects in 16 out of 95 patients with *non-malignant* diseases. I might here add, though realizing that I may be wrong, it is now my opinion that serum globulin protein changes in cancer come late in the disease rather than early; if true, such a test would probably indicate tissue invasion and not early cancer *in situ*.

It is difficult to completely evaluate a test of this sort unless one has had personal experience with it. It would seem, however, that the test has a good sound practical basis from a chemical viewpoint. It appears not to be as simple as it would seem to be at first hand, and the necessity for total serum protein determinations makes it quite unpleasant from a technical standpoint, but the entire procedure can and probably will be simplified. As it now stands its cost would be prohibitive to the private patient, and costly for the hospital laboratory to perform routinely, although it could very well be adapted to cancer clinics provided trained technical help were utilized who had a good knowledge of chemistry. We should not forget, however, that the test is *not a specific one*, that it gives positive findings in diseases other than cancer; and I believe I am correct in saying that Dr. Huggins stated that in his opinion it should be regarded somewhat as a "rough test for cancer", or perhaps as a helpful exclusion test.

To summarize, we can only say at this writing that there is no single dependable chemical test for the diagnosis of cancer. The method as reported by Dr. Huggins and his associates may well lead to the establishment of such a diagnostic procedure which would be useful and helpful. In the meantime we must still depend upon a good physical examination of our patients, expertly made x-ray studies, biopsies for pathologic study, Papanicolaou smears, blood examinations, etc., until the final test for malignancy is discovered, evaluated and organized for general use in our clinics, offices and hospitals. Perhaps such a great step in cancer diagnosis is just around the corner. Let us hope so, anyway.

JACK C. NORRIS, M.D.

PRESIDENT'S PAGE

For many years the threat of socialized medicine has been discussed and condemned by practically every physician engaged in the private practice of medicine in the State of Georgia. Most of this, however, has been very much like Mark Twain's remark about the weather, "Everybody talks about it, but nobody does anything about it." This threat has now ceased to be something that we should plan to combat at some future date. The danger is present and it is necessary to meet it now. The proponents of politically-controlled medicine are using every means possible to sell the people of the United States on the idea that the independent practice of medicine has failed.

We must combat this by a well organized system of public information. To further this purpose a Public Relations Committee has been appointed and it is hoped that local information committees will be established jointly by every county society and its auxiliary.

The material gathered and published by the A.M.A. and the State Committee will be of very limited value unless the county societies function in such a manner that this material can effectively obtain a local outlet.

At each annual meeting of the Medical Association of Georgia, resolutions are introduced to have committees appointed to carry out different phases of the Association's functions. Many of these committees were originally designed to be active only until their purposes were accomplished. Having satisfactorily completed their work, these committees through their chairmen have over a period of years recommended their dismissal. In making com-

mittee appointments such committees have been eliminated from the roster. Other committees having overlapping functions have been combined. The various committees on Voluntary Prepayment Medical Care were stripped of all duties by a resolution passed by the House of Delegates in 1948, which assigned these duties to a statutory committee elected by the district societies. These, though not specifically dismissed, were no longer able to function and were therefore not reappointed. Four new committees were established by resolutions approved by this year's House of Delegates.

All committees appearing in this month's *Journal* have functions which are considered necessary and I feel certain that they will carry out their duties promptly and efficiently, thus furthering the aims of our organization. The Public Relations Committee and the Medical Civilian Preparedness Committee are central committees and they will organize sub-committees throughout the State.

Upon entering our second one hundred years, we face many new problems. These problems, although new, are no more formidable than many encountered and overcome by our predecessors. Let us meet them with the same indomitable spirit and we too can be victorious.

In closing, I quote from an essay delivered by Dr. Robert Battey at our 24th annual meeting. "Whatever be your opinions of the wisdom of my course, I trust you will see in it evidence of a heart not devoid of human sympathy, of a mind not shirking professional labor, of a hand not fearing to lift itself when duty calls".

ENOCH CALLAWAY, M.D.

THE JOURNAL
OF THE
MEDICAL ASSOCIATION OF GEORGIA

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TIME TO STAND UP AND
BE COUNTED!

There have been a few instances recently in which medical organizations, particularly scientific groups, have indicated reluctance to go on record against Compulsory Health Insurance on the ground of propriety.

The question raised is whether a scientific group should "get mixed up in politics".

The answer to that question is that we are "mixed up in politics" whether we like it or not, because medicine has been brought under political attack.

The only question which remains is whether we are going to defend our profession against that political attack—and how we can do it most effectively.

If Compulsory Health Insurance is enacted, every medical organization will be subject to political controls and influence—and every doctor will be restricted in the practice of his profession. Then we really will be "mixed up in politics"!

That issue, we believe, makes it imperative that all medical organizations—scientific or otherwise—take their stand, publicly and vigorously, against the emasculation of sound medical practice.

American medicine needs to present a united front against politically-controlled medical practice—and we believe it is not only ethical, but highly desirable for our scientific groups to make their position known.

Let's stand up and be counted!

GEORGE F. LULL, M.D.
General Manager, American
Medical Association

ALPHEUS MAYNARD PHILLIPS, M.D.

At the Centennial Meeting of the Medical Association of Georgia, held in Savannah May 10-13, Dr. Alpheus Maynard Phillips of Macon was elected president-elect.

The son of Mr. and Mrs. E. D. Phillips of Macon, Alpheus Maynard Phillips was born in Harris County, Georgia, July 6, 1903. He has two brothers and four sisters. His parents moved to LaGrange, where he received his diploma from LaGrange High School. From 1921-23 he was a student at Emory University, and from 1923-24 he attended Mercer University, being granted his Bachelor of Science degree in 1924. From 1924-28 he was a student at the University of Georgia School of Medicine, receiving his Doctor of Medicine degree in 1928.

After his graduation from the medical school, and after having been granted license to practice medicine in Georgia, Dr. Phillips began his internship at Macon Hospital July 1, 1928, where he studied for two years, becoming resident surgeon July 1, 1929. He began the practice of medicine in Macon July 1, 1930, specializing in proctology.

Early in his medical career Dr. Phillips affiliated with organized medicine and has been a constant and earnest worker since that time, as evidenced by the following: twice elected secretary-treasurer of the Bibb County Medical Society, a position he has held nine years all told, he was president of that body in 1944. Since 1942 he has been secretary-treasurer of the Sixth District Medical Society. He was first vice-president of the Medical Association of Georgia in 1946-47.

Dr. Phillips holds fellowship in the American Medical Association, the American College of Surgeons and the Southeastern Surgical Congress, and is an associate fellow of the American Proctologic Society. He is a steward in the Vineville Methodist



ALPHEUS MAYNARD PHILLIPS, M.D.

Church; a 33rd Degree Mason; a past president of Macon Civitan Club; a member of the Elks; a member of the Macon Athletic Commission and a member of the Idlehour Country Club. In recent years he has served as chairman of the executive committee of Macon Hospital, and as assistant medical director of the Bankers Health and Life Insurance Company. In his busy life he still remembers that at one time he was a member of Theta Kappa Psi fraternity.

In 1929 Dr. Phillips married Miss Julia Alston Green, of Augusta. They have two sons—Al and Bob—the oldest of whom will graduate from the famous Lanier High School of Macon in the class of 1949.

So much for the chronologic report of the life of the Association's current president-elect. There are many physicians whose lives and whose work parallel his, and yet they are fewer than some of us

wish. It has been said that about 2,000 physicians in the United States carry on the actual work of organized medicine. Phillips is one of them, and maybe this is the real reason he is our president-elect at the beginning of the Association's second hundred years. Anyway, let each member of the Medical Association of Georgia resolve to cooperate with Dr. Phillips—a fine gentleman, an excellent and honored physician, and always a worker for this Association.

SAVANNAH SESSION, 1949

The Savannah session of the Association for 1949, better known as the Centennial Meeting, was attended by 520 members, by 85 visiting physicians, by 19 residents and medical students, by 269 members of the Woman's Auxiliary to the Association, and by 71 exhibitors. A few guests, particularly members of the press, failed to register. All told, approximately 1,000 persons attended the meeting.

Savannah, old and always hospitable, did her best to make this meeting a successful one. And it was, despite the fact that only 487 hotel rooms were available for our 2,202 members and guests. Of course, 111 of our members live in Savannah and in Chatham County, most of whom opened their homes to welcome those members and their wives who may have experienced difficulty finding places to stay.

The scientific program for this year perhaps was the best in the history of the Association. Scientific and technical exhibits also showed evidence of progress.

Needless to say, the time has come to make changes in plans for our annual sessions. We have outgrown the facilities offered by our hotels, and certain hotels in the State no longer wish to have all that goes along with the activities of an annual session. What are your suggestions to solve this problem?

AWARDS

The Centennial Meeting of the Medical Association of Georgia, held in Savannah May 10-13, was productive of numerous awards. The Committee on Awards reported as follows:

Hardman Loving Cup. This cup was awarded to Dr. John L. Elliott, of Savannah, for his work in connection with prepayment medical care plans in Georgia.

Ware County Medical Society Cup. This cup, presented to the Medical Association of Georgia by the Ware County Medical Society many years ago, was awarded for the first time. The award was to Dr. William R. Dancy, of Savannah, for meritorious work done in Army hospitals during World War I, where he not only recognized patients with hookworm disease but taught other physicians to recognize it, particularly those physicians from sections of the country other than the South.

Another committee, whose names are always anonymous for obvious reasons, judged the scientific and other exhibits. After careful consideration of all factors, this committee made the following awards:

Class 1

1. *a. Functional Uterine Bleeding.* Robert B. Greenblatt, Department of Endocrinology, University of Georgia School of Medicine, Augusta.

b. *One to Two-Hour Male Frog Test for Pregnancy.* Sarah Clark, Robert M. West, and Robert Greenblatt, Department of Endocrinology, University of Georgia School of Medicine, Augusta.

2. *Technic for Vaginal Hysterectomy With Only Four Vascular Pedicles and the Use of a Special Cystic Duct Forceps.* Cleveland Thompson, Millen Hospital, Millen.

3. *Hiatal Hernia Simulating Coronary Disease.* Carter Smith, Chas. Stone, Levering Neely and Ed Russell, Atlanta.

Honorable mention: *Radiography of the Gastrointestinal Tract.*, R. L. Kennedy and Earl H. Johnson, Kennedy Clinic, Metter.

Honorable mention: *Medical Illustration—A New Course of Training.* Jack Wilson, Department of Art as Applied to Medicine, University of Georgia School of Medicine, Augusta.

Class 2

1. *Woman's Auxiliary to the Medical Association of Georgia.*

2. *Vocational Rehabilitation Division—State Department of Education, Atlanta.*

3. *Occupational Disease in Differential Diagnosis—Georgia Department of Public Health in cooperation with the Division of Industrial Hygiene, Washington, D. C.*

NEW OFFICERS AND COMMITTEES

With the closing of the 1949 Savannah session of the Association, the following officers were elected:

President-Elect—A. M. Phillips, Macon.

First Vice-President (1 year) Ralph O. Bowden, Savannah.

Second Vice-President (1 year)—H. Walker Jernigan, Atlanta.

Parliamentarian (3 years)—J. W. Simmons, Brunswick.

Delegate to A.M.A. (to serve till Dec. 31, 1951)—C. H. Richardson, Sr., Macon.

Councilors

First District (3 years)—Lee Howard, Savannah.

Second District (3 years)—C. K. Wall, Thomasville.

Third District (3 years)—W. G. Elliott, Cuthbert.

Fourth District (3 years)—J. W. Chambers, LaGrange.

Fifth District (1 year)—M. C. Pruitt, Atlanta.

Sixth District (1 year)—H. D. Allen, Jr., Milledgeville.

Seventh District (1 year)—D. Lloyd Wood, Dalton.

Eighth District (1 year)—W. F. Reavis, Waycross.

Ninth District (2 years)—Bruce Schaefer, Toccoa.

Tenth District (2 years)—H. L. Cheves, Union Point.

Dr. Enoch Callaway, of LaGrange, was duly installed as president of the Association. Dr. C. K. Sharp, of Arlington, agreed to serve the remainder of 1949 as delegate to the American Medical Association, to fill the vacancy created by the death of Dr. Olin H. Weaver, of Macon. Dr. Sharp had long been Dr. Weaver's alternate delegate. Dr. Edgar D. Shanks, of Atlanta, was continued as secretary-treasurer.

New and old committees are listed elsewhere in *The Journal*.

6,597 DOCTORS ADDED TO MEDICAL PROFESSION IN 1948

Doctors entering the ranks of the medical profession in 1948 number 6,597, according to the 47th annual report of the American Medical Association Council on Medical Education and Hospitals.

Dr. Donald G. Anderson, Chicago, secretary of the council, and his assistant, Mrs. Anne Tipner, Chicago, present the report in the May 21 issue of *The Journal of the American Medical Association*. Their figures show that 3,230 doctors in this country died in 1948. The net increase in the physician population of the United States during 1948 was 3,367.

Medical examining boards of the 48 states and of the District of Columbia, Alaska, Hawaii, and Puerto Rico issued 13,551 licenses to practice medicine during 1948. Of this number, 94 per cent went to graduates of approved medical schools, 5,967 were granted after examination, and 7,584 were granted by reciprocity and endorsement of state licenses or the certificate of the National Board of Medical Examiners.

The number of licenses issued in 1948, as in two previous years, was greater than in any prewar year. Although in 1948 there were 892 fewer licenses registered than in 1947, there were increases recorded in 22 states, nearly all rural. The greatest number of licenses in 1948 were issued in California, 1,751. New York licensed 1,385, and Illinois licensed 749. More than 500 physicians were licensed in Ohio, Pennsylvania, and Texas, and no state licensed fewer than 25.

Candidates appearing before medical examining boards numbered 6,560, of whom 5,840 passed and 720 failed. The candidates represented 70 approved medical schools of the

United States, nine approved medical schools of Canada, four medical schools in the United States now extinct, 107 faculties of medicine and three licensing corporations of other countries, five unapproved institutions, and six schools of osteopathy.

The greatest percentage of failures represented three groups: foreign schools, unapproved schools, and schools of osteopathy. In these groups 51.5, 42.7, and 37.8 per cent, respectively, failed. From the United States approved schools there were 3.3 per cent who failed, as did 16.5 per cent of the Canadian graduates and 6.7 per cent of the graduates of extinct schools.

The greatest number of graduates of any one school examined was 214, representing Northwestern University Medical School, 93 of whom were tested in Illinois and 116 in 27 other states. More than 150 graduates of each of the following five schools applied for licenses last year: the University of Illinois (211) in 26 states; St. Louis University (156) in 13 states; Hahnemann Medical College (154) in 26 states; Jefferson Medical College (166) in 24 states; and Marquette University (174) in 18 states.

Increases in the physician population arranged in nine geographic divisions in the United States show that the Middle Atlantic and East North Central groups of states added the greatest number, 1,600 and 1,295, respectively. More than 500 were added in each of five other groups—New England 524, West North Central 650, South Atlantic 830, West South Central 555, and Pacific states 600. The East South Central states added 312, the Mountain states 158, and the territories and possessions 139.

Estimated figures indicate that on April 15, 1949, the total number of physicians in the continental United States was 202,516, of whom 151,883 were estimated as in private practice. The figure 202,516 includes licensed physicians engaged in full time research, teaching, and administration. It also includes licensed physicians engaged in full time research, teaching, and administration. It also includes physicians who have retired, interns and residents in hospitals, and those in government services.

1950 ANNUAL SESSION OF THE ASSOCIATION

The next annual session of the Medical Association of Georgia will be held in Macon April 18-21, 1950.

All meetings and all exhibits will be in Macon's City Auditorium.

Macon's hotels have promised cooperation. It is not too early to make your hotel reservations. Please do so now.

Members of the Association whose plans include participation in the scientific program of this meeting should send their requests to the Secretary-Treasurer of the Association.

POLITICIANS WOULD GAMBLE ON HEALTH OF AMERICAN PEOPLE

Politicians propose to gamble on the future health of the American people, charges Dr. Morris Fishbein, Chicago, editor of *Hygeia*, health magazine of the American Medical Association, in an editorial in the June issue.

Among the measures of the quality of medical service rendered to the people of any nation is the record in regard to lives of mothers lost in childbirth, Dr. Fishbein says. Politicians have completely ignored government statistics showing the United States has the lowest maternal death rate reported by any nation, he adds.

In support of this, he cites statistics issued by the Federal Security Administration covering maternal mortality rates of selected countries for 1933 and the latest available year.

These show that in 1947 the United States had a maternal mortality rate of 1.3 per 1000 live births, the lowest on the list. Sweden ranks second with a rate of 1.5 in 1943; France had a rate of 1.6 in 1942; England and Wales had a rate of 1.6 in 1944, and Denmark had a rate of 1.8 in 1941. Rates for Norway, the Netherlands, New Zealand, Ireland, Switzerland, and Australia for the latest available years were 2.0 or over.

In 1933 the United States ranked 11th with a maternal mortality rate of 6.2, according to Federal Security Administration statistics.

The editorial continues:

Some people have the impression that our mortality improvement has been extremely restricted and not general. The best state, Idaho, in 1933 had a rate of 4.3; the worst state in 1917 had a rate of 2.6. It is clear that the worst state in 1917 had a rate only two-thirds that of the very best state in 1933. Thus maternal mortality improvements have been general throughout the United States and the spread between the states with the lowest and highest rates is diminishing sharply.

Yet the politicians, completely disregarding what medicine has accomplished, proposed to gamble on the future health of the American people, wrecking the system that has produced such marvelous results, and substituting therefor a centrally controlled bureaucracy. To them the funds collected and the technic of administration seem more important than scientific progress, individual initiative and incentive or the essential humanity of the doctor-patient relationship.

RADIOISOTOPE AIDS DOCTORS WHO PERFORM BRAIN SURGERY

Difficult surgery for brain tumors is being made easier by radioactive phosphorus produced in atomic energy laboratories.

Writing in the May 21 *Journal of the American Medical Association*, B. Selverstone, M.D., A. K. Solomon, M.D., and W. H. Sweet, M.D., Boston, say that in 14 cases they were able to locate brain tumors at the time of operation by use of the isotope.

When radioactive phosphorus was given to these patients in injections, it became concentrated in the brain tumors. The doctors were then able to locate the tumors by using as a probe a miniature model of the Geiger-Muller counter, an instrument that measures radioactivity. The precise location of the tumor was shown by an increase in the counting rate of the instrument.

TEST DRUGS FOR USEFULNESS AGAINST HIGH BLOOD PRESSURE

Clinical testing of two synthetic compounds, priscol and dihydroergocornine, for usefulness against high blood pressure is reported in the May 21 *Journal of the American Medical Association*.

The drugs counteract constriction of the blood vessels and other effects produced by the sympathetic nerves, which regulate the heart beat, blood flow, and many other body functions.

Use of priscol in two cases of high blood pressure is described by Max P. Rogers, M.D., of High Point, N. C. In both patients, one of whom had received priscol only two weeks, blood pressure was greatly lowered. Dr. Rogers says. Both patients tolerated the drug well.

Priscol shows promise of being useful in disorders in which the blood circulation to the legs is impaired. Dr. Rogers' study shows. Three cases of such disorders associated with hardening of the arteries, three cases associated with diabetes, and two cases associated with thrombo-phlebitis (clots in the blood and inflammation of the veins) showed improvement after priscol therapy.

Patients with certain heart conditions may not be able to take the drug or may be able to take it only in small quantities, however, he indicates.

Tests of dihydroergocornine against high blood pressure are reported by Drs. Robert W. Dilkins, Edward D. Freis, and Joseph R. Stanton, from the Evans Memorial and Massachusetts Memorial Hospitals, and the Department of Medicine, Boston University School of Medicine, Boston, in another article in *The Journal*. The activity of dihydroergocornine in lowering blood pressure is unpredictable, being negligible in some patients and "profound" in others, they say.

FIND PERSONS WITH HIGH BLOOD PRESSURE LACK SELF-ASSERTION

A significant association between high blood pressure and lack of assertiveness is pointed out by five St. Louis doctors.

The doctors—Gregory C. Gressel, M.D., Frank O. Shobe, M.D., George Saslow, M.D., Henry A. Schroeder, M.D., and Philip H. DuBois, Ph.D., of the Departments of Neuropsychiatry, Psychology, and Internal Medicine of Washington University—made a study of personality patterns in 50 patients with high blood pressure

as part of a comprehensive investigation of the disease.

Reporting in the May 21 *Journal of the American Medical Association*, the doctors say that a comparison of personality patterns of these patients and of those of 49 patients with personality disorders and 44 patients with chronic illness of physical origin shows statistically significant degrees of association between high blood pressure and "subnormal assertiveness" and "obsessive-compulsive behavior."

Traits of being excessively submissive, ingratiating, and apologetic, and of greatly repressed feelings of hostility were found in 34 of these patients with high blood pressure, in 20 of the patients with personality disorders, and in only six of the patients with chronic illness of physical origin. Handicapping traits of meticulousness and repetition of actions were found in 37 patients in the first group, 14 in the second group, and six in the third group.

RULES AND REGULATIONS AFFECTING HOSPITALS IN GEORGIA

JOHN E. RANSOM, *Director
Division of Hospital Services,
State Department of Public Health
Atlanta*

In 1946 the General Assembly of the State of Georgia enacted a law related to hospitals and other institutions providing facilities for the care of the sick. The purpose and scope of this legislation are set forth in the following quotation from Section 1 of the Act:

"In addition to the powers and duties now vested in and imposed upon the State Board of Health by existing laws, the said Board shall have power and authority to make and promulgate reasonable rules and regulations for the protection of the health and lives of inmates and patients of hospitals, sanatoria, infirmaries, maternity homes, nursing homes and other institutions where persons are received for treatment, examination, maternity care or nursing care in this State, except that such authority shall not include the offices of physicians or others practicing the healing art unless more than one bed are provided in such offices for overnight care of patients. The Board after consulting with an advisory committee appointed as provided in Section 2 of this Act shall adopt and promulgate all such reasonable rules and regulations which in its judgment are necessary to protect the health and lives of said inmates and patients and shall prescribe and set out the kind and quality of building, equipment and hospital facilities which every hospital in this State shall have and use in order to properly care for its patients."

The Act further specifies that the advisory committee referred to above should be constituted as follows:

"There shall be established a hospital advisory committee to advise with the State Board of Health on the policies and rules and regulations necessary for carrying out the purposes of this Act. The membership of this committee shall consist of three hospital administrators or persons with broad experience in hospital administration appointed by the Georgia Hospital Association, five members appointed by the Medical Association of Georgia, one member appointed by the

Georgia Nursing Association, one member appointed by the Georgia Dental Association, five lay members with broad civic interests representing the various segments of the population appointed by the Governor, the Director of the State Department of Public Health, the Director of Public Welfare, the Attorney General, and the State Auditor."

The Act also provides that following the adoption of the said rules and regulations by the State Board of Health all persons operating or in charge of any hospital or other institution for the care of the sick shall make application to that Board for a permit to operate the same. Permits to operate are to be renewed annually.

In accordance with the above prescribed procedure and with the counsel and advice of the advisory committee, the State Board of Health, at a meeting held in October 1948, adopted rules and regulations, reasonable compliance with which is required as a basis on which a permit to operate will be issued.

The purpose of these rules and regulations is twofold. One purpose is to establish minimum standards covering construction, equipment, fire prevention, sanitation, and such procedures as are essential to insure adequate protection to "the health and lives of patients." The other purpose is to set forth in sufficient detail certain principles of hospital operation which are generally accepted as requisite to good modern hospital service, and to recommend the adoption of and compliance with these principles, insofar as possible by all hospitals in the State.

In order to set forth the general nature, scope and reasonableness of rules and regulations adopted by the State Board of Health, the following excerpts related particularly to the hospital plant and its equipment are presented.

"Any individual or group which proposes to build a new hospital or make material alterations or additions to existing facilities, shall submit the plans of such construction or alteration to the Georgia Department of Public Health for approval."

"All construction and alterations shall be made in accordance with approved plans and with such standards as are hereinafter set forth or shall subsequently be adopted by the Georgia State Board of Health. In approving the plans for new construction compliance with such of the standards as may not appear applicable to a particular project may be waived."

"Buildings used to house patients shall be of such construction that no hazards to the life and safety of patients and personnel exist. Buildings shall be capable of withstanding the weight and elements to which they are or may be subjected. The buildings shall be maintained so that there are no leaky roofs or walls, loose plaster, uneven flooring, broken windows, faulty equipment and other undesirable conditions which may be placed in the category of poor maintenance. Heating equipment, electrical equipment and elevators shall be so constructed and maintained as to assure the safety of patients and personnel."

"Buildings shall be approved by the local fire marshall or be in compliance with local and State fire regulations. If no fire regulations exist or are enforced by the local government or in case existing regulations do not include all the regulations hereinafter set forth, it shall be the responsibility of the owner or governing body of the hospital to see to it that no fire hazards, endangering the lives and safety of patients and personnel, exist in the hospital."

"All parts of the heating system shall be so constructed and maintained as to eliminate fire hazards. If the furnace or boiler room is located in a building in which patients are housed, it shall be cut off from the rest of the building by use of fire-resistive material. Metal and asbestos protection shall be provided if steam pipes and hot water pipes are placed closer than two inches from woodwork."

"An acceptable fire extinguisher shall be available for use on each floor. Essential personnel shall be given periodic instruction in the use of such equipment. Fire extinguishers shall be checked at six month intervals to see that they are in good working order at all times. A record of this inspection shall be recorded on a tag and attached to the extinguisher."

"There shall be more than one means of egress leading to the outside of the building from each floor. Exits shall be located as near to the opposite ends of the building as practicable. Exits shall be indicated by the proper lights and signs. Such exits shall not be locked from the inside."

"The heating plant shall be adequate to maintain a temperature of 75 to 80 degrees Fahrenheit in severe weather in the nursery and operating rooms, and 70 degrees Fahrenheit in other rooms used for patients."

"Each patient's room shall be an outside room with a satisfactory amount of natural light. It is recommended that the window area be at least one-eighth of the floor area."

"Proper facilities for sanitation shall be provided throughout the hospital buildings and premises for the purpose of insuring cleanliness and protection against infectious diseases."

"The water supply shall be of safe, sanitary quality, suitable for human use, and the supply system shall be approved by the Georgia Department of Public Health. The water shall be distributed to conveniently located taps throughout the buildings. Hot water shall be available at all times."

"Sewage shall be discharged into a municipal sewerage system, where such a system is available; otherwise, the sewage shall be collected, treated and disposed of in an independent sewerage system which is approved by the Georgia Department of Public Health."

"The plumbing and drainage, or other arrangements for the disposal of excreta and infectious discharges and institutional wastes shall be in accordance with local codes and the standards approved by the Georgia Department of Public Health."

Other regulations are related to food service, nursing service, facilities and services for surgery, obstetrics, clinical laboratory, x-ray, pharmacy, clinical records, etc.

Representatives of the Division of Hospital Services of the Department of Public Health have visited each hospital in the State for the purpose of acquainting the administrator or owner with the requirements of the law and the purposes of the rules and regulations. They have assured the hospitals that the Department of Public Health desires to assist them in every possible way to meet the requirements.

With hardly an exception, our representatives have been well received and have found that hospital people generally are in agreement that institutions which provide facilities for the care of the sick should be required to meet reasonable minimum standards related to their plants, equipment, and their service to patients.

OFFICERS AND COMMITTEES OF THE MEDICAL ASSOCIATION OF GEORGIA 1949-1950

MEDICAL ASSOCIATION OF GEORGIA

Officers and Committees 1949-1950

Officers

President.....	Enoch Callaway, LaGrange
President-Elect.....	A. M. Phillips, Macon
First Vice-President.....	Ralph O. Bowden, Savannah
Second Vice-President.....	H. Walker Jernigan, Atlanta
Parliamentarian.....	Jno. W. Simmons, Brunswick
Secretary-Treasurer.....	Edgar D. Shanks, Atlanta

Delegates to A. M. A.

B. H. Minchew (1948-1950).....	Waycross
Alternate, W. R. Dancy.....	Savannah
Allen H. Bunce (1948-1950).....	Atlanta
Alternate, Walter W. Daniel.....	Atlanta
C. H. Richardson, Sr. (1950-1951).....	Macon
Alternate, C. K. Sharp.....	Arlington

Council

W. F. Reavis, Chairman.....	Waycross
Marion C. Pruitt, Clerk.....	Atlanta

Councilors

1. Lee Howard (3 years).....	Savannah
2. C. K. Wall (3 years).....	Thomasville
3. W. G. Elliott (3 years).....	Cuthbert
4. J. W. Chambers (3 years).....	LaGrange
5. Marion C. Pruitt (1 year).....	Atlanta
6. H. D. Allen, Jr. (1 year).....	Milledgeville
7. D. Lloyd Wood (1 year).....	Dalton
8. W. F. Reavis (1 year).....	Waycross
9. Bruce Schaefer (2 years).....	Toccoa
10. H. L. Cheves (2 years).....	Union Point

Vice-Councilors

1. Chas. T. Brown.....	Guyton
2. C. H. Watt.....	Thomasville
3. Guy J. Dillard.....	Columbus
4. Clarence B. Palmer.....	Covington
5. D. Henry Poer.....	Atlanta
6. H. G. Weaver.....	Macon
7. M. M. Hagood.....	Marietta
8. Alton M. Johnson.....	Valdosta
9. D. H. Garrison.....	Clarkesville
10. J. Victor Roule.....	Augusta

Executive Committee

Enoch Callaway, President.....	LaGrange
W. F. Reavis, Chairman, Council.....	Waycross
Edgar D. Shanks, Secretary-Treasurer.....	Atlanta

Honorary Advisory Board

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Eugene E. Murphrey.....	President, 1917-1918
J. W. Palmer.....	President, 1918-1919
J. W. Daniel.....	President, 1923-1924
Frank K. Boland.....	President, 1925-1926
C. K. Sharp.....	President, 1928-1929
Wm. R. Dancy.....	President, 1929-1930
M. M. Head.....	President, 1932-1933
C. H. Richardson.....	President, 1933-1934
Clarence L. Ayers.....	President, 1934-1935
James E. Paullin.....	President, 1935-1936
B. H. Minchew.....	President, 1936-1937
Grady N. Coker.....	President, 1938-1939
J. C. Patterson.....	President, 1940-1941
Allen H. Bunce.....	President, 1941-1942
James A. Redfearn.....	President, 1942-1943
W. A. Selman.....	President, 1943-1944
Cleveland Thompson.....	President, 1944-1946
Ralph H. Chaney.....	President, 1946-1947
Steve P. Kenyon.....	President, 1947-1948
Edgar H. Greene.....	President, 1948-1949

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Carter Smith, Chairman.....	Atlanta
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Richard Torpin.....	Augusta
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Public Policy and Legislation

S. A. Kirkland, Chairman (1950).....	Atlanta
Jack C. Norris (1951).....	Atlanta
James A. Johnson, Jr. (1952).....	Manchester
T. F. Sellers.....	Atlanta
Enoch Callaway.....	LaGrange
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M. C. Pruitt, Chairman.....	Atlanta
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Marcus Mashburn.....	Cumming
W. F. Reavis.....	Waycross
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R. K. Winston.....	Tifton
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J. C. Brim.....	Pellham
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Julian K. Quattlebaum.....	Savannah
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J. A. Thrash.....	Columbus
C. Mark Whitehead.....	LaGrange
L. Minor Blackford.....	Atlanta
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Charles B. Fulghum.....	Milledgeville
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A. G. Little, Jr.....	Valdosta
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Abner Wellborn Calhoun Lectureship

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J. Calhoun McDougall.....	Atlanta

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J. C. Patterson.....	Cuthbert
George H. Lang.....	Savannah
Frank K. Boland.....	Atlanta
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T. F. Abercrombie.....	Decatur
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Fred G. Hodgson, Chairman.....	Atlanta
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F. Bert Brown.....	Savannah
J. Hiram Kite.....	Atlanta
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W. A. Newman	Macon	W. J. Cranston	Augusta
H. Walker Jernigan	Atlanta	Francis Martin	Shellman
Ed Irwin	Warm Springs	T. Luther Byrd	Atlanta
W. L. Funkhouser	Atlanta		<i>Cancer Commission</i>
Lawson Thornton	Atlanta	Everett L. Bishop, Chairman	Atlanta
		James J. Clark	Atlanta
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		R. C. Pendergrass	Americus
		Thomas Harrold	Macon
		D. Henry Poer	Atlanta
		Enoch Callaway	LaGrange
		Lee Howard	Savannah
		W. F. Jenkins	Columbus
		D. Lloyd Wood	Dalton
		J. T. McCall	Rome
		Chas. R. Andrews, Jr.	Canton
		Hoke Wammock	Augusta
		John H. Sherman	Augusta
		Calvin Stewart	Atlanta
		D. M. Bradley	Waycross
		F. G. Eldridge	Valdosta
		Maxwell Berry	Atlanta
		John Funke	Atlanta
		Sam Talmadge	Athens
		W. J. Murphy	Atlanta
		J. J. Collins	Thomasville
		Wadley Glenn	Atlanta
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Marion T. Benson, Jr.	Atlanta	Bruce Schaefer	Toccoa
Lee Howard	Savannah	Ralph H. Chaney	Augusta
Helen W. Bellhouse	Albany	C. F. Holton	Savannah
J. K. Quattlebaum	Savannah	Thomas Ross	Macon
J. Hiram Kite	Atlanta	J. Harry Rogers	Atlanta
Don F. Cathcart	Atlanta	W. G. Elliott	Cuthbert
Clair A. Henderson	Savannah	Shelley C. Davis	Atlanta
Estelle P. Boynton	Atlanta		<i>Revision of Pharmacopeia of U. S.</i>
		C. C. Aven, Chairman (1959)	Atlanta
		Allen H. Bunce (1959)	Atlanta
		Hal M. Davison (1959)	Atlanta
			<i>Prepayment Medical Care Plans</i>
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		John L. Elliott	Savannah
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		Kenneth D. Grace	LaGrange
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		W. L. Pomeroy	Waycross
			<i>Committee to Revise the Constitution</i>
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		Allen H. Bunce	Atlanta
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		W. R. Minnich	Atlanta
		Peter B. Wright	Augusta
		John Elliott	Savannah
		A. M. Phillips	Macon
		John A. Dunaway, Attorney for Association	Atlanta
			<i>Liaison Committee of 53 Constituent State Medical Association to Coordinate Educational Program of A. M. A.</i>
		Jack C. Norris	Atlanta
			<i>Public Relations</i>
		Eustace Allen, Chairman	Atlanta
		W. W. Daniel	Atlanta
		W. G. Elliott	Cuthbert
		J. E. Penland	Waycross
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		Ralph H. Chaney	Augusta
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Medical Civilian Preparedness

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Charles E. Dowman	Atlanta
Joseph S. Skobba	Atlanta
Walter M. Bartlett	Atlanta

Fraternal Delegates to Other States

Alabama—M. M. Head, Zebulon; John E. Walker, Columbus; D. S. Reese, Carrollton; H. B. Jenkins, Donalsonville.

Florida—W. W. Anderson, Atlanta; Jas. L. Campbell, Jr., Valdosta; T. J. Ferrell, Waycross; J. C. Keaton, Albany.

North Carolina—James H. Semans, Atlanta; J. Hubert Milford, Hartwell; Hartwell Joiner, Gainesville; D. N. Thompson, Elberton.

South Carolina—R. G. Stephens, Washington; F. H. Killam, Greensboro; D. R. Thomas, Augusta; Anne Hopkins, Savannah.

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First District: James M. Byne, Jr., Waynesboro, Sept. 1, 1951.

Second District: C. K. Sharp, Arlington, Sept. 1, 1951.

Third District: R. C. Montgomery, Butler, Sept. 1, 1954.

Fourth District: J. A. Corry, Barnesville, Sept. 1, 1949.

Fifth District: Spencer A. Kirkland, Atlanta, Sept. 1, 1954.

Sixth District: C. L. Ridley, Macon, Sept. 1, 1950.

Seventh District: W. P. Harbin, Jr., Rome, Sept. 1, 1950.

Eighth District: B. H. Minchew, Waycross, Sept. 1, 1950.

Ninth District: Robert L. Rogers, Gainesville, Sept. 1, 1951.

Tenth District: D. N. Thompson, Elberton, Sept. 1, 1949.

STATE OF GEORGIA AT LARGE***Georgia Dental Association*

W. K. White, Savannah, Sept. 1, 1951.

J. G. Williams, Atlanta, Sept. 1, 1951.

Georgia Pharmaceutical Association

George Wright, Tifton, Sept. 1, 1953.

J. B. Butts, Milledgeville, Sept. 1, 1953.

*Nominated by their respective district medical societies and appointed for six year terms.

**Nominated by their respective associations.

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CHILDREN DO NOT INHERIT SUSCEPTIBILITY TO TUBERCULOSIS

Scientific evidence does not justify the belief that children born of tuberculous parents have a hereditary susceptibility to the disease, says a medical consultant in *The Journal of the American Medical Association*, May 14 issue.

The theory that the child who has nontuberculous ancestry is more susceptible because of the absence of inherited immunity is also untenable, he emphasizes.

Children of tuberculous mothers or fathers do contract more tuberculosis than those of the general population if they remain in contact

with their parents, the consultant explains. Children of tuberculous parents who do not have contact with the parents after birth but who at some subsequent time are exposed to contagion do not contract more primary tuberculosis than children under the same circumstances of parents not having tuberculosis.

Children of tuberculous parents who subsequently have primary lesions or tuberculosis are not more likely to have the acute and chronic reinfection forms of the disease than are those from homes where there is no tuberculosis.

The belief that susceptibility to tuberculosis is inherited from parents having the disease was so firmly implanted in the minds of many people during the Middle Ages that it has been carried down to the present day, despite overwhelming evidence that the disease is caused by a microbe and is therefore contagious, and the total lack of scientific evidence for the inheritance theory, the consultant says, adding:

"The entire problem resolves itself into one of infection with tubercle bacilli, which usually occurs after birth. All children have an effective defense mechanism against the first invasion of this organism. However, this is not adequate to destroy tubercle bacilli, and some of them subsequently have clinical tuberculosis, regardless of the presence or absence of this disease in their ancestors."

LIVING CONDITIONS IN CITIES**MAKE REHABILITATION DIFFICULT**

Living conditions in cities handicap patients recovering from serious illnesses, points out an editorial in the May 21 *Journal of the American Medical Association*.

Convalescents used to be stimulated by the daily needs of life on the farm and in the home, and their relationship with the doctor was sufficiently personal to help in the rehabilitation process, the editorial says.

Nowadays, however, and especially in cities, living conditions do not aid rehabilitation, and the doctor who has served the patient well during his recovery in the hospital can do little or nothing for him during the rehabilitation phase.

Many people live almost monastically in apartments like cubicles. From the hospital an inmate returns to his cubicle, where materials are delivered to the service door by the smoothly bowing "circulatory system" of the metropolis, and activities for recreation tend to be passive ones, such as listening to the radio, reading, and watching television, plays, or sports.

A prolonged convalescence imposes added strains upon a family living in cramped quarters. Modern living conditions in cities make special rehabilitation programs an important part of medical care, and emphasize the role of physical medicine and occupational therapy in the rehabilitation of patients.

The Medical Association of Georgia will hold its 1950 session in Macon April 18-21.

**REGISTRATION AT THE NINETY-NINTH ANNUAL SESSION OF THE
MEDICAL ASSOCIATION OF GEORGIA**

A

Aiken, W. W., Lyons
 Alexander, Geo. H., Forsyth
 Allen, C. H., Bremen
 Allen, Edwin W., Milledgeville
 Allen, Eustace A., Atlanta
 Anderson, Sam A., Atlanta
 Andrews, Charles R., Jr., Canton
 Arnold, J. H., Newnan
 Arnold, Maurice F., Hawkinsville
 Arnold, J. T., Parrott
 Arp, C. R., Atlanta
 Arrendale, Joe J., Cornelia
 Atkinson, H. C., Macon
 Atwater, John S., Atlanta
 Avera, J. B., Brunswick
 Ayers, C. L., Toccoa

B

Bailey, L. A., Milledgeville
 Bailey, Thomas E., Augusta
 Baker, J. O., Savannah
 Banker, E. A., Atlanta
 Barfield, W. E., Jackson
 Barner, John L., Athens
 Barrow, J. Gordon, Atlanta
 Bartlett, Walter M., Decatur
 Barton, W. L., Macon
 Bateman, Needham B., Atlanta
 Baxley, W. W., Macon
 Bazemore, J. M., Augusta
 Beard, Donald E., Atlanta
 Beasley, B. T., Atlanta
 Bedingfield, W. H., Vidalia
 Bedingfield, W. O., Savannah
 Bell, John A., Jr., Dublin
 Bellhouse, Helen W., Thomasville
 Bennett, W. H., Atlanta
 Benson, Earl B., Marietta
 Benson, Marion T., Atlanta
 Benson, Wm. H., Marietta
 Benton, Chas. C., Augusta
 Berry, Maxwell, Atlanta
 Blackford, L. Minor, Atlanta
 Bivings, Lee, Atlanta
 Blaine, B. C., Atlanta
 Blalock, Frank A., Rome
 Blalock, Tully T., Atlanta
 Blumberg, Max M., Atlanta
 Blum, Leo J., Jr., Warner Robins
 Boling, Edgar, Atlanta
 Born, W. H., McRae
 Bowden, Ralph O., Savannah
 Boyd, Hartwell, Atlanta
 Bradley, D. M., Waycross
 Brannen, E. A., Macon
 Brawner, Jas. N., Atlanta
 Brown, C. MacKenzie, Albany
 Brown, Chas. T., Guyton
 Brown, F. Bert, Savannah
 Brown, John M., Augusta
 Brown, Lester A., Atlanta
 Brown, Randall G., Swainsboro
 Brown, Robert Harris, Atlanta
 Brown, Stephen T., Atlanta
 Brown, Stephen W., Augusta
 Brown, Walter E., Savannah
 Bryan, William W., Atlanta
 Bunce, Allen H., Atlanta
 Burdine, W. E., Blue Ridge
 Bush, Albert R., Hawkinsville
 Bussell, A. J., Rochelle
 Byne, J. Miller, Jr., Waynesboro

C

Calhoun, F. Phinizy, Atlanta
 Callaway, Enoch, LaGrange
 Campbell, James L., Jr., Valdosta
 Cason, H. B., Warrenton
 Cason, Wm. M., Atlanta
 Casteel, L. R., Washington
 Cathcart, Don F., Atlanta
 Claxton, E. B., Dublin
 Center, A. H., Savannah
 Chalmers, Rives, Atlanta
 Chambers, J. W., LaGrange
 Champion, W. L., Atlanta
 Chaney, Ralph H., Augusta
 Charlton, Thomas J., Savannah
 Cheek, O. H., Dublin
 Cheves, H. L., Union Point
 Claiborne, Sterling, Atlanta
 Clifton, Ben H., Atlanta
 Cofer, Olin S., Atlanta
 Cobb, Tyrus R., Jr., Dublin
 Coker, Grady N., Canton
 Cole, W. A., Savannah
 Coleman, Reese C., Jr., Atlanta
 Collier, Thomas W., Brunswick
 Collier, Thomas J., Atlanta
 Collins, Braswell E., Waycross
 Conner, Herbert J., Vidalia
 Cook, Ellison R., HI, Savannah
 Cornett, D. M., Lafayette
 Cornwell, G. K., Fitzgerald
 Corry, J. A., Barnesville
 Coward, Allen W., Savannah
 Craig, J. B., Savannah
 Crawford, H. C., Atlanta
 Crawley, Walter G., Marietta
 Crichton, Robert B., Milledgeville
 Curtis, W. L., College Park

D

Dancy, William R., Savannah
 Daniel, Ernest F., Dawson
 Daniel, J. Wallace, Claxton
 Daniel, J. W. Jr., Savannah
 Daniel, Walter W., Atlanta
 Davis, Abe J., Augusta
 Davis, Floyd, Waycross
 Davis, Shelley C., Atlanta
 Davison, Hall M., Atlanta
 deCaradeuc, St. J. R., Savannah
 DeFreese, Samuel J., Monroe
 Demmond, E. C., Savannah
 Denmark, Leila, Atlanta
 Derrick, H. C., Oglethorpe
 Derrick, Howard C., Jr., LaFayette
 Dimmock, Avary, Atlanta
 Dobes, W. L., Atlanta
 Dodd, W. A., Dublin
 Donlan, Charlotte, Savannah
 Dorough, W. S., Atlanta
 Dougherty, Mark S., Atlanta
 Dowman, Charles E., Atlanta
 Dowman, Cordelia K., Atlanta
 Drane, Robert, Savannah
 DuPree, George, Gordon
 DuPree, John T., Gordon
 Durham, Bon M., Americus
 Dunstan, Edgar M., Atlanta
 DuVall, W. Beecher, Atlanta

E

Edenfield, R. W., Macon
 Edgerton, M. T., Atlanta

Egan, M. J., Savannah
 Elam, Lincoln P., Jr., Sparta
 Elder, John D., Winder
 Elliott, John L., Savannah
 Elliott, W. G., Cuthbert
 Ellis, John O., Atlanta
 Epting, Monroe J., Savannah
 Equen, Murdock, Atlanta
 Erwin, Goodloe Y., Athens

F

Faggart, George H., Savannah
 Fancher, J. K., Atlanta
 Farmer, C. Hall, Macon
 Felber, Ernest, Atlanta
 Felder, R. E., LaGrange
 Ferrell, R. G., Dublin
 Ferrell, T. J., Waycross
 Fernan-Nunez, M., Dublin
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 Flanagin, W. M., Waycross
 Flanagin, W. S., Augusta
 Fletcher, I. Elizabeth, Statesboro
 Floyd, Waldo E., Statesboro
 Fort, C. A., Atlanta
 Fowler, A. H., Marietta
 Fowler, R. W., Marietta
 Frech, Henry C., Savannah
 Fuller, Geo. W., Atlanta
 Fuller, William A., Augusta
 Fulmer, William H., Savannah

G

Galloway, William H., Atlanta
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 Gilbert, R. B., Greenville
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 Goodyear, Wm. E., Atlanta
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 Green, Charles G., Waynesboro
 Greenblatt, Robert B., Augusta
 Greene, Edgar H., Atlanta
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 Griffin, L. H., Claxton
 Griggs, Harvey E., Conyers
 Gross, O. S., Vidalia

H

Hafford, W. C., Waycross
 Hall, John L., Macon
 Hall, Thos. H., Macon
 Ham, Emerson, Savannah
 Hamm, W. G., Atlanta
 Harbin, Lester, Rome
 Harper, Harry T., Augusta
 Harper, Sage, Douglas
 Harrell, H. P., Augusta
 Harrison, F. N., Augusta
 Harrold, Thomas, Macon
 Hatcher, Milford B., Macon
 Hauck, A. E., Atlanta

- Head, Homer, Monroe
 Head, M. M., Zebulon
 Helton, B. L., Sandersville
 Henderson, C. A., Savannah
 Henry, G. G., Augusta
 Hicks, Thomas J., McCaysville
 Hock, Charles W., Augusta
 Hodgson, F. G., Atlanta
 Holbrook, H. P., Jr., Summerville
 Holloman, A. Leon, Savannah
 Holloway, Geo. A., Atlanta
 Holmes, Edgar C., Moultrie
 Holmes, L. P., Augusta
 Holton, C. F., Savannah
 Hopkins, Anne McH., Savannah
 Horton, B. E., Atlanta
 Houser, Frank M., Macon
 Howard, Lee, Savannah
 Hubert, M. A., Athens
 Huguley, Chas. M., Jr., Emory University
 Hnie, Lynn M., Monroe
 Hutchins, J. T., Atlanta
 Hutto, G. M., Columbus
 I
 Irwin, I. W., Albany
 Iseman, Everette, Savannah
 J
 Jackson, Joseph M., Folkston
 Jenkins, O. W., Lindale
 Jenkins, Wm. F., Columbus
 Jernigan, C. S., Sparta
 Jernigan, H. W., Atlanta
 Johnson, G. H., Jr., Savannah
 Johnston, T. H., Brunswick
 Jones, Charles S., Emory University
 Jones, Jabez, Savannah
 Jones, John P., Macon
 Jordan, T. C., Jr., Barnesville
 Jordan, William K., Macon
 K
 Kantor, Walter W., Savannah
 Kay, Jas. B., Byron
 Keen, O. F., Macon
 Kelly, G., Lombard, Augusta
 Kellum, J. M., Thomaston
 Kennedy, R. L., Metter
 Kenyon, Steve P., Dawson
 Ketchum, C. W., Valdosta
 King, Harry C., Griffin
 King, Janies T., Atlanta
 King, Ruskin, Savannah
 Kirkland, Spencer A., Atlanta
 Kirkland, W. P., Manchester
 Kleemann, Gilbert L., Augusta
 Knight, Arthur M., Jr., Waycross
 Kusnitz, M., Alamo
 L
 Lamm, J. H., Atlanta
 Lang, G. H., Savannah
 Lange, J. Harry, Atlanta
 Lange, S. J., Savannah
 Lanier, L. I., Soperton
 Lawless, Thomas F., Savannah
 Lee, F., Lansing, Augusta
 Lee, Lawrence, Savannah
 Lee, Lawrence, Jr., Savannah
 Leslie, John T., Decatur
 Lester, Wm. M., Atlanta
 Letton, A. H., Atlanta
 Lexington, Henry L., Savannah
 Levy, Jack H., Augusta
 Levy, Louis K., Atlanta
 Linch, A. O., Atlanta
 Little, A. G., Jr., Valdosta
 Logue, Bruce, Atlanta
 Lokey, Hugh, Atlanta
 Long, W. V., Savannah
 Looper, Ben K., Canton
 Lord, C. B., Jefferson
 Lott, Oscar H., Savannah
 Lowance, Mason L., Atlanta
 Lynn, S. C., Savannah
 M
 Maloy, C. J., McRae
 Maner, Edwin N., Savannah
 Mann, F. R., McRae
 Martin, J. D., Jr., Atlanta
 Martin, John M., Augusta
 Martin, William O., Jr., Atlanta
 Mashburn, Marcus, Cumming
 Mass, Max, Macon
 Mauldin, John W., Alma
 Mays, J. R. Shannon, Macon
 Mazo, Milton, Savannah
 McAllister, J. A., Atlanta
 McCain, John R., Decatur
 McCall, John T., Jr., Rome
 McCall, W. R., LaGrange
 McCarver, W. C., Vidette
 McCollum, R. R., Jr., Kingsland
 McCord, Ralph, Rome
 McCoy, W. R., Folkston
 McDaniel, J. G., Atlanta
 McDaniel, J. Z., Albany
 McElroy, J. D., Atlanta
 McElveen, J. M., Brooklet
 McGahey, W. C., Madison
 McGahee, R. C., Augusta
 McGee, H. H., Savannah
 McGinty, A. Park, Atlanta
 McLaughlin, C. K., Macon
 McMillan, E. C., Jr., Macon
 McPherson, John H. T., Jr., Athens
 Meaders, H. D., Newnan
 Mercer, J. E., Vidalia
 Metts, J. C., Savannah
 Milford, J. Hubert, Hartwell
 Mitchell, Marvin A., Atlanta
 Mixson, Joyce F., Jr., Valdosta
 Mixson, W. D., Waycross
 Mobley, J. W., Thomasville
 Moncrief, W. M., Atlanta
 Morgan, F. W., Douglasville
 Morrison, Howard J., Savannah
 Morton, John B., Thomasville
 Moye, C. G., Dublin
 Muecke, H. W., Waycross
 Mulkey, A. P., Millen
 Mulkey, Q. A., Millen
 Mullins, D. F., Jr., Athens
 Musarra, E. A., Marietta
 N
 Nathan, Daniel E., Fort Valley
 Neal, Jules C., Jr., Augusta
 Neill, F. K., Albany
 Nevil, J. L., Metter
 Neville, R. L., Savannah
 New, James S., Augusta
 Newman, W. A., Macon
 Newsome, Emory G., Sandersville
 Nicholson, J. H., Madison
 Nicolson, Wm. Perrin, Jr., Atlanta
 Niles, Geo. A., Atlanta
 Nippert, Philip H., Atlanta
 Norris, Jack C., Atlanta
 O
 Oden, L. H., Jr., Blackshear
 O'Daniel, Jas. F., Ellijay
 Oliver, R. L., Savannah
 Olmstead, G. T., Savannah
 O'Neill, J. C., Savannah
 Osborne, V. W., Atlanta
 Osborne, William W., Savannah
 Osteen, W. L., Savannah
- P
 Pacifici, Joseph, Savannah
 Palmer, J. W., Ailey
 Patterson, J. C., Cuthbert
 Patton, Sam E., Macon
 Paullin, James E., Atlanta
 Pendergrass, R. C., Americus
 Penland, J. E., Waycross
 Perry, Samuel W., Atlanta
 Persall, John T., Augusta
 Peterson, T. A., Savannah
 Phillips, A. M., Macon
 Pierce, L. W., Waycross
 Pierotti, Julius V., Atlanta
 Pinholster, J. H., Savannah
 Pinkston, A. G., Jr., Glennville
 Poer, David Henry, Atlanta
 Pomeroy, W. L., Waycross
 Portman, Harry J., Savannah
 Powell, C. E., Swainsboro
 Powell, Fincher C., Decatur
 Powell, Vernon E., Atlanta
 Powers, Leander K., Savannah
 Prince, Chas. L., Savannah
 Pruitt, Marion C., Atlanta
 Pumpelly, R. A., Jesup
- Q
 Quattlebaum, Julian, Savannah
- R
 Rabhan, L. J., Savannah
 Rankin, Joseph L., Atlanta
 Rasmussen, Earl, Atlanta
 Rayle, A. A., Atlanta
 Read, Joseph C., Atlanta
 Reavis, W. F., Waycross
 Redd, Stephen C., Atlanta
 Redmond, C. G., Savannah
 Redmond, C. R. A., Savannah
 Reese, D. S., Carrollton
 Revell, Walter J., Louisville
 Rice, Guy V., Atlanta
 Richardson, C. H., Macon
 Richardson, C. H., Jr., Macon
 Ridley, C. L., Sr., Macon
 Ridley, John H., Atlanta
 Rieth, Paul, Atlanta
 Rinker, J. Robt., Augusta
 Ritch, Thos. J., Jesup
 Roberts, C. Purcell, Atlanta
 Robinson, David, Savannah
 Robinson, R. L., Atlanta
 Rogers, F. S., Coleman
 Rogers, Harry, Atlanta
 Rogers, J. V., Cairo
 Roper, C. J., Jasper
 Rosen, E. F., Savannah
 Rosen, Samuel F., Savannah
 Ross, Thos. L., Jr., Macon
 Rubin, Jacob, Savannah
 Rubin, S. N., Gordon
 Rumble, Charles T., Macon
 Rushin, C. E., Atlanta
 Russell, Alex B., Winder
 Russell, Paul T., Albany
- S
 Sage, Dan Y., Atlanta
 Saggus, J. G., Harlem
 Sams, J. R., Covington
 Sandison, Calvin, Atlanta
 Savage, Carl P., Montezuma
 Sax, Charles E., Savannah
 Scales, S. F., Carrollton
 Schaefer, Bruce, Toccoa
 Schneider, M. M., Savannah
 Schroder, J. Spalding, Atlanta
 Seaman, H. A., Waycross
 Seay, E. Faxton, Marshallville

Sellers, T. F., Atlanta
 Selman, W. A., Atlanta
 Semans, J. H., Atlanta
 Shanks, Edgar D., Atlanta
 Shanks, Edgar D., Jr., Atlanta
 Sharp, C. K., Arlington
 Sharpley, Helen A., Savannah
 Sharpley, H. F., Jr., Savannah
 Sharpley, John G., Savannah
 Shaw, L. W., Savannah
 Shearouse, Wm., Savannah
 Sherman, J. H., Augusta
 Shiflet, R. E., Toccoa
 Simmons, J. W., Brunswick
 Simmons, William G., Sylvania
 Simonton, Fred H., Chickamauga
 Simpson, A. W., Washington
 Simpson, A. W., Jr., Washington
 Simpson, John A., Athens
 Sims, A. R., Richland
 Smith, Carter, Atlanta
 Smith, E. J., Hahira
 Smith, Harold M., Savannah
 Smith, Herschel A., Americus
 Smith, J. R., Hahira
 Smith, Leo, Waycross
 Smith, W. P., Decatur
 Stalvey, John K., Savannah
 Stapleton, J. W., Thomson
 Steadman, Harry E., Hapeville
 Stoddard, S. D., Savannah
 Stoner, W. P., Waycross
 Storey, W. Edward, Columbus
 Stump, Robert L., Valdosta

T

Taylor, Lloyd B., Savannah
 Taylor, R. L., Davisboro
 Thigpen, Corbett H., Augusta
 Thomas, David R., Jr., Augusta
 Thomas, Frank E., Albany
 Thomas, Russell, Americus
 Thompson, Cleve, Millen
 Thompson, D. N., Elberton
 Thwaite, Walter G., Quitman
 Torpin, Richard, Augusta
 Train, John K., Savannah
 Train, John Kirk, Jr., Savannah
 Tucker, J. P., Bainbridge
 Turner, Edwin W., East Point
 Turner, John W., Atlanta
 Turner, W. W., Nashville

U

Upchurch, W. E., Atlanta
 Upson, E. T., Savannah
 Usher, Chas., Savannah

V

Varner, John B., Atlanta
 Veatch, J. W., Jr., Atlanta
 Venable, D. R., Columbus
 Victor, Jules, Jr., Savannah
 Vinson, Frank, Fort Valley

W

Wahl, Ernest F., Thomasville
 Wall, C. K., Thomasville
 Walker, Exum, Atlanta
 Wammock, Hoke, Augusta
 Ware, D. B., Fitzgerald
 Wasden, C. N., Macon
 Watson, Edwin R., Macon

Watters, Julian Q., Toccoa
 Weeks, R. B., Augusta
 Weens, H. Stephen, Atlanta
 Weinberg, James I., Atlanta
 West, Edward M., Augusta
 Westerfield, Charles W., Savannah
 Whiteside, J. H., Statesboro
 Whipple, R. L., Cochran
 Whipple, Robert L., Jr., Atlanta
 Whitaker, Wm. G., Jr., Atlanta
 Wilkes, W. A., Augusta
 Williams, A. F., Savannah
 Williams, David C., Jr., Augusta
 Williams, L. W., Savannah
 Williams, P. L., Cordele
 Williams, P. L., Jr., Cordele
 Williams, Virgil B., Augusta
 Williams, W. J., Augusta
 Willingham, T. L., Atlanta
 Willis, G. W., Ocilla
 Wills, C. E., Washington
 Winchester, M. E., Brunswick
 Winstead, G. Ashby, Atlanta
 Winston, Richard K., Tifton
 Wood, D. Lloyd, Dalton
 Wood, R. Hugh, Emory University
 Wright, Geo. W., Augusta
 Wright, Peter B., Augusta

Y

Yampolsky, Joseph, Atlanta
 Yarbrough, Y. H., Milledgeville
 Yeomans, James W., Jesup
 Yeomans, Una Ritch, Jesup
 Youmans, C. R., Hazlehurst
 Youmans, H. D., Lyons
 Youngblood, Sam, Jr., Savannah

VISITORS

A

All, Frank E., Jacksonville, Fla.
 Alderman, D. B., New Haven, Conn.
 Arnoldi, Louis B., Savannah
 Auten, W. J., Omega

B

Battey, Lonis L., Augusta
 Benedict, W. L., Rochester, Minn.
 Benson, N. O., Lumberton, N. C.
 Blumberg, C. W., Augusta
 Blumberg, Joe M., Augusta
 Bondurant, Wm., Atlanta
 Bosshold, Erich P., Holmes, N. Y.
 Brown, Edward E., Augusta
 Burgamy, Clyde A., Sylvania

C

Calk, Guy L., Augusta
 Collins, C. G., New Orleans, La.

D

Daniel, Joe W., Augusta
 Deane, Ernst, Augusta
 Dcas, Thos. C., Augusta
 Downing, E. E., Newington

F

Friedman, Charles, Jr., Augusta

G

Garner, James W., Augusta
 Goldin, H. W., Rockmart

H

Hall, S. P., Chickamauga
 Hall, S. P., Jr., Scottsboro, Ala.
 Hall, Thomas M., Milledgeville

Hamilton, W. F., Augusta
 Harris, W. G., Jacksonville, Fla.
 Howkins, John S., Savannah
 Huff, S. H., Jr., Savannah
 Hummel, J. E., Augusta

K

Kaufman, J. R., Augusta
 Kay, James B., Jr., Augusta
 Kelley, A. J., Savannah

L

Lan, Robert E., York, Pa.
 Leslie, William T., Augusta
 Levy, Arthur E., Augusta
 Likins, C. H., Louisville, Ky.
 Long, Loyd L., Jr., Savannah

M

Macfarlane, Catharine, Philadelphia,
 Pa.
 Martin, R. V., Savannah
 Martin, S. W., Hazlehurst
 Massoud, M. A., Pineora
 McLaughlin, Ralph S., Charleston,
 W. Va.
 McVicar, Donald S., Savannah
 Moffet, J. D., Jr., Atlanta
 Moore, Lewis, Savannah

N

Nicolson, W. P., III, Augusta
 Nieburgs, H. E., Augusta

O

Orbison, J. A., Augusta

P

Podryski, V., Augusta
 Pollock, Byron E., Augusta
 Priviteri, Chas. A., Chamblee

R

Rabun, John, Augusta
 Ramsay, Allan B., Augusta
 Roberts, S. M., Augusta
 Roberts, W. V., Sanford, Fla.
 Rogers, Edward A., Jr., Pelham

S

Sammons, R. A., Savannah
 Sanderson, E. S., Augusta
 Scardino, Peter L., Houston, Texas
 Schley, Richard L., Jr., Savannah
 Schneider, L. A., Ninety-Six, S. C.
 Shepard, W. M., Adel
 Shepherd, Edwin C., Savannah
 Smith, Joel P., Atlanta
 Stinson, Roy F., Jr., Thomasville

T

Taylor, William J., Atlanta

V

Volpitto, Perry P., Augusta

W

Wammock, Virgene S., Augusta
 Waters, Ralph M., Orlando, Fla.
 Weeks, Calvin N., Douglas
 Wells, E. D., Jr., Oteen, N. C.
 Withington, John C., Savannah
 Woodruff, Gerald G., Anniston, Ala.
 Woods, O. C., Milledgeville

Y

Yount, Harold A., Statesville, N. C.

With 2,202 members of the Medical Association of Georgia now, one may wonder why more members and visitors did not attend the Centennial Meeting of the Association, held in Savannah during the past month. The facts are: many members and would-be visitors could not obtain adequate hotel accommodations. While the Savannah physicians were most gracious in their efforts to provide everyone with a place to stay, it is evident now that we have outgrown our pants.

COMMUNICATION

To The Editor:

The Department of the Army is urgently in need of Public Health Officers to serve in a civilian capacity with the occupation forces in Japan. These positions, which involve supervision of Japanese prefecture (state) health departments in all phases of preventive medicine and medical care programs, offer an excellent opportunity for broad experience in public health. We will greatly appreciate your assistance in locating qualified and interested candidates for this program.

Minimum acceptable qualification requirements are a degree in medicine plus one year internship. Experience in public health is desirable but is not mandatory.

The salary for these positions is \$6,235.20 per annum plus 10 per cent post differential with quarters provided at no cost to the employee. Individuals selected for appointment must agree to remain a minimum of two years. Transportation is furnished to and from Japan. Dependents may join the employee in approximately six to eight months after his arrival in the command.

It will be appreciated if you will publicize this information and advise interested applicants to make formal application by submitting Civil Service Commission Standard Form 57 to this office. Forms may be obtained from any Class A Post Office.

The necessity for immediate recruitment of qualified and suitable personnel cannot be overemphasized. Your assistance in this vital program will be most beneficial to the Department of the Army.

Sincerely yours,
CHARLES C. FURMAN,

Chief, Recruitment Section, Overseas Affairs Branch, Civilian Personnel Division, Department of the Army, Washington, D. C., May 18, 1949.

NEWS ITEMS

Dr. Robert A. Atkins, Royston, who for the past year has been associated with Dr. Stewart D. Brown at Brown's Hospital, Royston, has become a member of the staff of the hospital of the Southern Methodist University, Dallas, Texas.

* * *

Dr. C. C. Aven, Atlanta, was recently speaker at the forty-fifth annual meeting of the Atlantic Coast Line Railroad Surgeons Association held at the General Oglethorpe Hotel, Savannah.

* * *

The Battey State Hospital for Tuberculosis, at Rome, is confronted by a shortage of funds which may force further restrictions on admitting patients. Dr. R. L. Rogers, Gainesville, chairman of the State Board of Health, said there seemed to be no alternative after the board received a report that the hospital now has 1,408 patients and money to care for only 1,325 of them. The report made to the board by Dr. Rufus Payne, Battey superintendent, said the hospital has less than half the nurses and only three-fourths as many doctors as it needs. The Battey problem was referred to the board's hospital committee for study. It presumably will work out a revision of the system for admitting patients.

* * *

The Bibb County Cancer Clinic, Macon, curbs cancer death rate. The clinic, located in the Macon Hospital, treats approximately 20 to 30 patients every Tuesday and Thursday. The Macon unit has available 10 beds and the use of the hospital x-ray and laboratory equipment. The number of beds allotted the clinic is not sufficient, but these 10 beds are all the hospital can afford for the use of treating cancer. Dr. Thomas Harrold, head of the clinic, said that with the inadequate number of beds many patients become discouraged before they can be hospitalized, and fail to return for treatment. When they are located and urged to return to the clinic the cancer has grown to such extent

that their condition has become hopeless. Ten physicians donate their time and effort to the service of the clinic. With this aid the clinic is able to treat every type of cancer with the exception of brain tumors and tumors of the lungs. These cases are sent to University Hospital, Augusta, or Emory University Hospital, Atlanta.

* * *

Dr. George A. Billingshurst, Macon, recently presented to the county commissioners his resignation as Bibb County physician. He gave the reason for his decision as pressure of other duties.

* * *

Dr. Frank B. Brewer, Atlanta, former branch medical director of the Veterans Administration, has been named VA area medical director to supervise 22 VA hospitals and institutions in seven southeastern states. In the southeastern area Dr. Brewer will serve as representative of Dr. Paul B. Magnuson, chief medical director of VA in Washington. He will be assisted by a small staff of physicians and hospital administrators.

* * *

Dr. C. A. Burgamy, Sylvania, announces the opening of his office in the Overstreet Building, Sylvania, for the practice of medicine.

* * *

Dr. Thomas J. Charlton, Savannah physician, was recently elected president of the Georgia Infirmary, Savannah, at the annual meeting of the board of trustees.

* * *

Dr. H. W. Clements, beloved Adel physician who made his first call 49 years ago last April, was described by the following verse penned by John Greenleaf Whittier:

"An unselfish service of good deeds,
Pure living, tenderness to human needs,
Reverence and trust, and prayer for light to see
The Master's footprints in his daily ways."

Traced with lines of kindness and gentleness, his familiar countenance reflects a life of love and service for others. Dr. Clements was a member of the graduating class of 1900 of the University of Georgia School of Medicine, Augusta. He studied general medicine and surgery in New York and Chicago. His son, Dr. Fred N. Clements, is associated with him in the practice of medicine and surgery.

* * *

Dr. Thomas W. Collier, Brunswick, recently had published a case report in the American Journal of Diseases of Children. The journal is a periodical of the American Medical Association for specialists in pediatrics. Members of the medical profession regard as a high honor the acceptance of an article submitted to it. Dr. Collier's report describes rare twins born at City Hospital, Brunswick, March 13, 1947. Only nine other sets of such twins have been reported in all recorded medical history, dating from the sixteenth century. The article is being translated into foreign languages for distribution in South America.

Dr. Collier recently attended a meeting of the American College of Allergists held in Chicago.

* * *

Drs. F. L. Cosby and Polk S. Land, Columbus physicians, were lauded for their aid in examining recruits for the Army and Air Force in a recent statement by Major Rex W. Seavey, recruiting officer in charge of the Columbus Army and Air Force recruiting main station. "Drs. Land and Cosby have been of great aid to the recruiting service in this work," Major Seavey said. Both doctors have performed medical examinations for Army and Air Force volunteers at the Columbus station since November 1948, he pointed out. In praise of the doctors in the seven-state Third Army area, he said that thousands of men entering the two branches of the service have been examined by civilian doctors.

Dr. Samuel J. DeFreese, Monroe physician, has been awarded membership in the American Academy of General Practitioners. In order to become a member of the academy, every physician must take a month of post-graduate work each year. Dr. DeFreese is one of Monroe's leading physicians and is being congratulated upon winning this honor.

* * *

Dr. Charlotte Donlan, Savannah physician, was honored with a "farewell" luncheon by the officers and members of the health committee of the Savannah Business and Professional Woman's Club. Dr. Donlan was praised for her valued service to the Women's Club. "It was not only in the realm of health and medicine that Dr. Donlan took an interest, but in all matters that pertained to the status of women in business and the professions. She entered wholeheartedly into the program and work of the club, and in all community interests. We shall miss her very much," Mrs. Veda Royall said. Dr. Donlan, director of radiotherapy of the Savannah Tumor Clinic, has accepted a position in Washington, D. C.

* * *

Dr. Joseph G. Crovatt, Camilla, spent the month of May at Bellevue Medical Center, New York University Hospital, New York City, taking a postgraduate course in cardiology and surgery.

* * *

Dr. L. C. Cheves, Jr., Montezuma physician, announces the opening of his office in Ideal for the practice of medicine. Dr. Cheves will have office hours each Tuesday, Thursday and Friday morning between the hours of eight and eleven o'clock.

* * *

Dr. A. Dan Duggan, formerly of Sandersville, announces his association with Drs. A. W. Simpson, C. E. Wills and M. C. Adair, Doctors Building, Washington. After receiving his medical degree from the University of Georgia School of Medicine, Augusta, Dr. Duggan served one year at Piedmont Hospital, Atlanta, one year with the Massachusetts General Hospital, Boston, and two years on a fellowship in neurosurgery with Mayo Clinic, Rochester, Minn. He was recently on the staff of the Kings County Hospital, Brooklyn, N. Y. During World War II he entered the Navy as a lieutenant, junior grade, and was discharged as a lieutenant-commander, after having seen foreign service and combat duty in the North Atlantic with the destroyer and submarine fleets.

* * *

Dr. W. G. Elliott, Patterson Hospital, Cuthbert, recently completed the postgraduate course in pulmonary diseases, the course being approved by the American Trudeau Society, in cooperation with Emory University School of Medicine, Atlanta. The sessions were held at the Academy of Medicine, Atlanta.

* * *

Dr. H. L. Erwin, Dalton, chairman of the Whitfield County Board of Health, was recently presented with ignition keys to the new Chest X-ray Unit truck which the board acquired through contributions by tuberculosis groups of Catoosa-Whitfield-Murray counties.

* * *

Dr. William Etheridge, formerly of Atlanta, announces the opening of his office in Greensboro, for the practice of his profession. Dr. Etheridge is a graduate of Emory University School of Medicine, Atlanta.

* * *

Dr. David B. Fillingim, Savannah physician, has been elected president of the medical staff of the Warren A. Candler Hospital, Savannah. Other officers are: Dr. Jacob Rubin, vice-president; and Dr. Anne McHenry Hopkins, secretary. A native of Cuthbert, Dr. Fillingim graduated from the University of Georgia School of Medicine, Augusta, in 1934. He served his internship at Emory University Hospital, Emory University. During the period of 1936-38 he was resident physician at

the Warren A. Candler Hospital, and entered private practice in Savannah in 1938. He served for three years in the Air Corps during World War II, most of his service being in the European theater.

* * *

The Georgia Public Health Association, at its recent meeting held in Savannah, named the following officers for 1949-50: Dr. James Thrash, Columbus, president; Dr. C. D. Bowdoin, Atlanta, president-elect; Dr. C. A. Henderson, Savannah, is the retiring president.

* * *

The Georgia Radiological Society held its annual meeting in Savannah, May 11. Dr. W. W. Bryan, Atlanta, was elected president; Dr. J. J. Collins, Thomasville, vice-president, and Dr. Robert Drane, Savannah, secretary-treasurer. The fall meeting will be held in November at the Oliver General Hospital, Augusta. Features of the meeting included the reading of a paper by Dr. C. A. Priviteri, Lawson General Hospital, Chamblee, on "Curling of the Esophagus"; and showing of a motion picture by Dr. David Robinson, Savannah, on "Fluoroscopic Diagnosis of Cardiac Infarction."

* * *

The Fulton County Medical Society held its dinner meeting at the Academy of Medicine, Atlanta, May 19. Scientific meeting: Dr. E. Van Buren, moderator; "Psychosomatic Aspects of Gastro-Intestinal Disturbances" by Dr. Frank M. Geiser; "Acute Pancreatitis", Dr. John Whitaker; "The Clinical Significance of Jaundice", Dr. C. W. Strickler, Jr.; "The Gastroscope as a Diagnostic Aid in Stomach Disorders", Dr. John Atwater.

* * *

Dr. Hugh A. Goodwin, former recruiting medical officer at the U. S. Naval Recruiting Station in Nashville, Tenn., announces his association with Dr. R. N. Little, Summerville. Dr. Goodwin received his medical degree from Emory University School of Medicine, Atlanta, in 1946. He interned in Norfolk, Va., in 1946-47 and served in the U. S. Naval Hospital, Norfolk, Va., in 1947. Following his services at the Naval Hospital, Dr. Goodwin was stationed on the U. S. S. Providence, a cruiser, in the Mediterranean Theater in 1947-48.

* * *

Dr. Julius E. Gross, a native of Pittsburgh, Pa., has been assigned to the staff of the U. S. Veterans Administration Hospital, Dublin, as chief of the Ear, Nose, and Throat department. He comes to Dublin from the Veterans Administration Hospital, Bay Pines, Fla. He previously has been associated with the Montefiore Hospital and St. Margaret's Hospital, both of Pittsburgh. He is a graduate of the University of Maryland School of Medicine and College of Physicians and Surgeons, Baltimore. He did postgraduate work at the University of Berlin, Germany, the University of Vienna, and the Royal Infirmary, Edinburgh, Scotland. A member of the Masons and a Shriner, he is also affiliated with the Allegheny Medical Association, American Medical Association, American Board of Otolaryngology, and the American Academy of Ophthalmology and Otolaryngology.

* * *

Dr. O. T. Gower, Cordele, was recently appointed city physician of Cordele for the year.

* * *

Dr. Lon Grove, Atlanta, an Emory University Hospital surgeon, was honored recently "not only for his skill and greatness as a surgeon, but also for his modesty, simplicity, understanding and greatness as a human being." A portrait of Dr. Grove was presented to Emory University by a group of friends and patients. Bobby Jones, Jr., of golfing fame, presented the Robert Brackman painting to Dr. Goodrich C. White, president of Emory, in the Whitehead Memorial Room in Emory University Hospital. "It is fitting and proper to have his likeness in this hospital," Dr. White said, "since he played such a great part in its development."

A long-time member of Emory staff, Dr. Grove was with the old Wesley Memorial Hospital before it was transferred to Emory. Dr. Grove is a native Alabamian. He was graduated from the University of Alabama School of Medicine in 1912, and studied at postgraduate centers in the United States and Europe. During World War I, Dr. Grove served at Walter Reed Hospital before being transferred to U. S. Base Hospital No. 202, in Orleans, France. He came to Atlanta soon after the war and joined the staff of Wesley Memorial Hospital. An associate professor of surgery at Emory, Dr. Grove is a member of the Fulton County Medical Society, the Medical Association of Georgia, American Medical Association, American College of Surgeons, Southern Society of Clinical Surgery, Southern Surgical Association, and one of the founders of the American Board of Surgery.

* * *

Dr. Charles C. Harrold memorial is dedicated. Members of the Macon Kiwanis Club recently dedicated a Magnolia Denudata in memory of the late Dr. Charles C. Harrold, Macon physician and surgeon. The tree and stone marker have been placed in Mulberry Street Park in front of the Grand Theater; the marker reads "In 1929 he conceived, and for twenty years carried out the planting of memorial magnolias in Macon for deceased Kiwanians."

* * *

Dr. John R. Heller, Jr., graduate of the Emory University School of Medicine, Atlanta, and director of the National Cancer Institute at Bethesda, Md., made the following statement in the current issue of "Hospitals," official publication of the American Hospital Association, "Medical scientists are now midchannel in cancer research." Dr. Heller called cancer a medical paradox. "We know less about the actual mechanisms of cancer than of almost any other disease," he said. "Yet, considered as a body of accumulative scientific knowledge, we know of more agents that will cause cancer than any other disease."

* * *

Dr. Lee Howard, Jr., Savannah, attended a meeting of the American Society of Pathologists and Bacteriologists at Harvard Medical School, Boston. Dr. Howard presented a paper before the pathologic section entitled, "The Histogenesis of Metaplasia and Intraepithelial Carcinoma of the Cervix." His paper summarizes a cancer research problem he has been conducting for the past four years in the department of pathology at Duke University School of Medicine, Durham, N. C.

* * *

Dr. A. S. Johnson, Sr., Elberton, was recently presented by the Elberton Star by the following facts: "Any list of prominent Elbertonians would include the name of Dr. A. S. Johnson, Sr. He has practiced medicine in Elberton for 36 years, is widely known over this section of the State and held in high esteem by his fellowmen. Sid Johnson was born in Hall County, nine miles west of Gainesville, in 1883. For his elementary education he attended Hall County High School and later attended North Georgia Agricultural College in Dahlonega. After leaving Dahlonega he worked in the Gainesville post office a year, then transferring to Atlanta post office where he worked on a night shift from 1908 to 1912. During this time he was attending Emory University School of Medicine, working at the post office after classes to pay his tuition. In 1913 he graduated from Emory University School of Medicine and was associated with Dr. J. E. Johnson, Elberton, following a general practice. He later studied diseases of the eye, ear, nose and throat at Lutheran Hospital, New York City. He returned to Elberton and has followed that profession since."

* * *

The Laurens County Medical Society held its meeting at the County Health Office and elected the following

officers: Dr. Tyrus R. Cobb, Jr., Dublin, president; Dr. E. B. Claxton, Dublin, vice-president; Dr. O. H. Cheek, Dublin, secretary-treasurer for the 25th year. Dr. A. G. Bell, Wrightsville, was named delegate and Dr. Fred J. Coleman, Dublin, named alternate delegate to the Medical Association of Georgia annual session.

* * *

Dr. Steve P. Kenyon, Dawson, attended the first annual meeting of the American Academy of General Practice, held in Cincinnati, which is composed of approximately 10,000 physicians engaged in general practice over the United States. Dr. Kenyon is president of the Georgia Chapter. Dr. Albert R. Bush, Hawkinsville, treasurer of the Georgia Chapter, also attended the meeting.

* * *

Dr. Walter D. Martin, Shellman physician, has been named clinical director of the Richmond County Health Department. Dr. Abe J. Davis, health commissioner, recently announced. "Dr. Martin fills a vacancy we have been trying to fill for several years," Dr. Davis said. "All other large health departments in the State, such as Savannah, Macon, Columbus, and Atlanta, have more than one medical health official. The State health department will participate in his salary." Dr. Martin is a native Georgian. He graduated from the University of Georgia School of Medicine, Augusta, in 1941.

* * *

Dr. J. W. Mauldin, Alma physician, recently attended a postgraduate course for general practitioners at the University of Georgia School of Medicine, Augusta.

* * *

Dr. John D. McArthur, Lyons physician, has been appointed physician for the Georgia State Prison at Reidsville. He will continue his general practice at Lyons.

* * *

Dr. Christopher J. McLoughlin, Atlanta, recently debated against "Should We Have Compulsory Health Insurance in America?" at the Gate City Lodge of B'nai B'rith. Dr. McLoughlin is a graduate of Hahnemann Medical College and Hospital of Philadelphia. He was a fellow of the Mayo Clinic, Rochester, Minn., and received the postgraduate degree of master of science in medicine from the University of Minnesota Medical School, Minneapolis, Minn. He is a World War II veteran, and practices internal medicine in Atlanta.

* * *

Dr. J. E. Morris, Moultrie, recently resigned as commissioner of the health departments of Colquitt and Brooks counties. He will be succeeded by Dr. John D. Stillwell, formerly of Waycross, and in charge of the health departments of Thomas and Grady counties. Dr. Stillwell is a graduate of Northwestern University Medical School, Chicago, and interned at Bellevue Hospital, New York City.

* * *

Dr. W. J. Peebles, LaGrange, Troup County health commissioner, recently resigned to accept a similar position in Monroe County, Key West, Fla. Dr. Margaret Olsen Peebles, who is health commissioner for Harris and Meriwether counties, will join her husband in Key West.

* * *

The Richmond County Medical Society held its April meeting at the old medical college building on Telfair Street, in Augusta. Dr. Edgar Hines, Jr., Rochester, Minn., spoke on the use of anticoagulants in vascular diseases. He pointed out that progress had been made in this field, and early and judicious use of the anticoagulants has shortened the period of disability, reduced the number of complications and lowered the mortality rate in some types of vascular disease.

Dr. Everett S. Sanderson, Augusta, head of the department of medical microbiology and public health at the University of Georgia School of Medicine, has again accepted the chairmanship of the Augusta "Stamp Out VD" campaign committee. This committee makes a solicitation each year by mail for funds to be used in the fight against venereal diseases. The local appeal is conducted under the sponsorship of the American Social Hygiene Association, which is the only national voluntary organization in the field of venereal disease control.

* * *

Dr. H. C. Schenck, Atlanta, director of the division of tuberculosis control of the Georgia Department of Public Health, was elected president of the Georgia Tuberculosis Association at the closing session of its annual convention at the Sheraton Bon Air Hotel, Augusta, April 23. Other officers are Dr. Mark Smith, Macon, first vice-president, and Dr. John H. Venable, Dalton, a member of the executive committee. Mr. L. L. Young, Atlanta, was re-elected executive secretary.

* * *

The Savannah Chapter American Red Cross recently named Dr. Lee Howard, Jr., Savannah physician, technical director-physician in charge of the Savannah Regional Blood Center. Dr. Howard was regarded as peculiarly fitted by education and experience to fill the important post of technical director-physician by the advisory committee of the program. He is a son of Dr. and Mrs. Lee Howard, Sr., and a veteran of World War II.

* * *

Dr. Ansley Seaman, Waycross surgeon, was elected president of the Georgia Chapter of the American College of Surgeons at a meeting held during the annual session of the Medical Association of Georgia held in Savannah. Dr. Seaman has been a member of the American College of Surgeons since 1936. His election is regarded as a signal honor and his friends congratulate him.

* * *

Dr. T. F. Sellers, Atlanta, director of the Georgia Department of Public Health, says all dogs must be vaccinated. Dr. Sellers stated that vaccination for rabies will prevent the disease in almost every instance. He revealed that vaccination programs in counties where rabies was most prevalent helped reduce the number of confirmed cases in Georgia from 471 in 1947 to 388 last year. Rabies vaccination is not a permanent protection against hydrophobia, but will protect "Browser" for at least a year, Dr. Sellers continued, adding that the immunization should be repeated each spring or early summer.

* * *

Dr. Charles R. Smith, Columbus, has resumed his practice after serving several months on the psychiatric staff of the Veterans Administration Hospital, Augusta. He served on the continued treatment staff and later was chief of the acute intensive treatment service of the hospital. He was also assistant professor of clinical psychiatry and neurology on the staff of the University of Georgia School of Medicine, Augusta. Dr. Smith practiced in Columbus from April, 1946 until August, 1948. Prior to that, he served as a neuropsychiatrist in the U. S. Army. His practice will be limited to neuropsychiatry.

* * *

The Southern Medical Association will hold its annual meeting at the Netherland Plaza Hotel, Cincinnati, Nov. 14-17, 1949, upon the invitation of the Campbell-Kenton County Medical Society of Northern Kentucky, Newport and Covington being the principal cities of this two-county society. This will be a Kentucky meeting. Hotel reservations will clear through the Hotel Committee as set up by the host society. The following are the names of Georgia physicians who are officers of the Southern Medical Association

for 1948-49: Dr. W. A. Selman, Atlanta, Councilor; Dr. Steve P. Kenyon, Dawson, Chairman, Section on General Practice; Dr. William L. Funkhouser, Atlanta, Vice-Chairman, Section on Pediatrics; Dr. Robert C. Pendergrass, Americus, Vice-Chairman, Section on Pathology; Dr. Wm. L. Dobes, Atlanta, Vice-Chairman, Section on Dermatology and Syphilology; Dr. Mason J. Lowance, Atlanta, Vice-Chairman, Section on Allergy; Dr. David Henry Poer, Atlanta, Vice-Chairman, Section on Surgery; Dr. C. E. Irwin, Warm Springs, Vice-Chairman, Section on Orthopedic and Traumatic Surgery; Dr. M. K. Bailey, Atlanta, Vice-Chairman, Section on Urology; Dr. Murdock Equen, Atlanta, Chairman, Section on Ophthalmology and Otolaryngology, and Dr. Thomas F. Sellers, Atlanta, Vice-Chairman, Section on Public Health.

* * *

The Southern Pediatric Seminar will hold its Twenty-Ninth annual session at Saluda, N. C., July 18-30, 1949. A postgraduate summer course devoted to "Better Babies in the South." Georgia physicians on the faculty are: Dr. Lee Bivings, Atlanta, associate professor of pediatrics, Emory University School of Medicine; Dr. William L. Funkhouser, Atlanta, associate professor pediatrics, Emory University School of Medicine; Dr. Philip A. Mullerlin, Augusta, associate professor pediatrics, University of Georgia School of Medicine; Dr. Hines Roberts, Atlanta, former associate professor pediatrics, Emory University School of Medicine, medical director Eggleston Hospital for Children. For information and registration address M. A. Owings, Secretary-Treasurer, Saluda, N. C.

* * *

The Southeastern Surgical Congress held its annual meeting at Biloxi, Miss. Dr. C. C. Howard, Glasgow, Ky., was elected president, and Dr. B. T. Beasley, Atlanta, secretary-treasurer.

* * *

The University of Georgia School of Medicine class of 1939, held its tenth anniversary reunion at the home of Dr. and Mrs. Harold M. Smith, Savannah, May 12, the doctors being the guests of Dr. Smith and Dr. Milton Mazo. Dr. and Mrs. G. Lombard Kelly and Miss Janie Turner of Augusta were guests of honor. Those invited: Drs. Lane H. Allen, Thomas E. Bailey, John B. Bowen, all of Augusta; Henry G. Brooks, Conway, S. C.; W. E. Burdine, Blue Ridge; L. C. Cheves, Montezuma; Robert H. Cleveland, Jacksonville, Fla.; E. D. Cochran, W. M. Cochran, both of Spartanburg, S. C.; W. M. Corbett, Jr., Columbia, S. C.; A. M. Deal, Lake City, Fla.; Nathan M. DeVaughn, Augusta; Bon M. Durham, Americus; J. Elizabeth Fletcher, Statesboro; Homer Head, Jr., Monroe; Charles G. Jordan, Jr., Cuthbert; Harold B. Levin, Atlanta; Tracy Levy, Tuscaloosa, Ala.; John M. Miller, Augusta; S. A. O'Brien, Oxford, N. C.; H. D. Pinson, Augusta; Frank Quattlebaum, St. Paul, Minn.; E. Faxton Seay, Marshallville; Addison W. Simpson, Jr., Washington; James W. Stapleton, Thomson; Bruce Swain, Anderson, S. C.; Walter C. Thwaite, Quitman; Martha Warren McQuitty, New Orleans, La.; and Clarence Mark Whitehead, LaGrange.

* * *

The University of Georgia School of Medicine Alumni Association named the following new officers at a recent meeting held during the annual session of the Medical Association of Georgia held in Savannah: Dr. Mary Evelyn Swilling (class of 1929) Macon, president; Dr. J. Calvin Sandison (class of 1927) Atlanta, first vice-president; Dr. J. Zeb McDaniel (class of 1932) Albany, second vice-president; Dr. John Howard Robinson (class of 1938) Americus, third vice-president. New members of the board of managers, elected for one-year term, are Dr. Rudolph Bell, Thomasville (class of 1927); Dr. Thomas L. Clary, Augusta (class of 1943); Dr. J. Miller Byne, Sr., Waynesboro (class of 1900), and Dr. W. Joseph Williams, Augusta (class

of 1931).

* * *

The Veterans Administration Hospital, Dublin, has added Dr. Joseph A. Coyle, orthopedic surgeon, of Pittsburgh, Pa., and Dr. John H. Barksdale, Jr., native of Macon, to the staff.

* * *

The Ware County Health Department laboratory, at Waycross, made 1,395 tests during March, 1949, according to announcement made by Dr. George E. Atwood, commissioner of health.

* * *

Dr. David C. Williams, Jr., formerly of Milledgeville and Atlanta, announces the opening of his office in the Doctors Building, 1345 Greene Street, Augusta. Practice limited to urology. Dr. Williams graduated from the University of Georgia School of Medicine, Augusta, in 1942. He interned two years at Detroit, served with the Medical Corps of the U. S. Army for two years, spending a year overseas. He was associated with the Ballenger-McDonald Clinic, Atlanta, for over two years.

* * *

Dr. C. Roy Williams, well known Wadley physician, is remodeling his offices on Main Street to include a modern clinic. He will be equipped to handle minor surgical cases, with a modern operating and delivery room and rooms with six beds. These facilities will enable Dr. Williams to care for a great many patients locally who would otherwise have to go out of town.

* * *

Dr. Wallace Gibson, Sparta physician, has accepted a position as surgeon at the State Hospital, Milledgeville. Dr. Gibson graduated from the University of Georgia School of Medicine, Augusta, and completed his internship at Macon Hospital, Macon, and since has been in private practice at Sparta.

* * *

The Georgia Dietetics Association held its spring meeting at Lenwood Hospital, Augusta, May 4. Dr. C. C. Odom, manager of the Lenwood Hospital, discussed food service in neuropsychiatric hospitals. Dr. S. A. Singal, Augusta, associate professor of biochemistry at University of Georgia School of Medicine spoke on "The Nicotinic Acidryptophan Relationship in Nutrition." Dr. W. K. Hall, Augusta, associate professor of biochemistry at the University of Georgia School of Medicine, discussed ocular and blood changes in nutritional deficiencies in the rat. Dr. A. P. Briggs, Augusta, professor of biochemistry, University of Georgia School of Medicine, spoke on "Renal Factors in Cardiac Edema."

* * *

Dr. Wm. R. Baker, Hawkinsville physician and surgeon, has started preliminary examinations of the Pulaski County school children in connection with the tonsil clinic conducted by the Hawkinsville Lions Club. Dr. Baker and the Taylor Memorial Hospital are co-operating with the Lions Club in making special rates for both removal of tonsils and hospitalization. The rate can only be obtained through the Lions Club.

* * *

The Fulton County Medical Society held its semi-monthly dinner meeting at the Academy of Medicine, Atlanta, June 2. Scientific meeting: Symposium—Gastrointestinal Roentgenology. Dr. W. C. Coles, moderator; "Differential Diagnosis of Sigmoid Lesions", Dr. Ted F. Leigh; "X-ray Diagnosis of Peptic Ulcer", Dr. H. Stephen Weens; "Lesions of Esophagus", Dr. William W. Bryan.

VETERANS' NEWS

By November 1, 1948, contracts had been let for 31 of the 91 Veterans Administration hospitals to be built under the billion dollar construction program. The entire project, expected to be completed in 1953, will result in some 51,000 additional beds for ill and disabled veterans.

RESOLUTIONS ON THE DEATH OF GROVER MIDDLEBROOKS ADOPTED BY THE FULTON COUNTY MEDICAL SOCIETY

In the death of Grover Middlebrooks, April 18, 1949, the legal profession of Atlanta and Georgia lost one of its most distinguished and beloved members, and the medical profession was deprived of an indispensable legal adviser and wonderful friend.

No lawyer in the city was more highly respected and esteemed by his confreres, the judges and the courts than Mr. Middlebrooks, a man of courage and marked integrity. His popularity and success were shown by his election as a president of the Atlanta Bar Association, and a member of the Georgia and American Bar associations. Representing many insurance companies, he was a member of the Council of the Insurance Section of the American Bar Association. He was chairman of the Fifth Regional Loyalty Board and was one of the founders of the Atlanta Legal Aid Society. A graduate in arts and law from the University of Georgia, he was always a loyal, enthusiastic alumnus of that institution, and was a former president of the Alumni Society.

From 1922 to the time of his death, 27 years, Mr. Middlebrooks was the most capable and successful attorney for the Medical Association of Georgia, in which position he gave service to the doctors of the State, the importance and value of which it is impossible to over-estimate. The experience he acquired would be difficult to duplicate. In recent years, except during the war, an average of 18 damage suits against doctors were defended annually. Middlebrooks won 97 per cent of these cases, truly a remarkable and gratifying record, which we cannot praise too highly.

More than this, there is no record of how many threatened suits which Grover Middlebrooks, by judicious and diplomatic handling, prevented from reaching the courts. Many members of the Medical Association of Georgia could give happy testimony in this regard. His long and intimate contact with the profession gave him a sympathetic and cooperative understanding of its problems so that he was enabled to terminate controversies between doctors which otherwise might have generated charges of unethical conduct, by fellow practitioners, which are due usually to competition and jealousy. Mr. Middlebrooks' quiet, wise manner of handling all cases so successfully has rendered great service in quieting unfavorable criticism of our profession, so easily begun in these days near to socialized medicine.

He was ever ready to assist the Committee on Public Policy and Legislation in their work, and contributed materially to the preparation of important medical bills. For all Grover Middlebrooks has contributed to the Medical Association of Georgia during 27 years, Be it

Resolved, by the Fulton County Medical Society that his passing is an irreparable loss, the magnitude of which it is difficult to estimate and describe. Any encomiums we can pay him at this time cannot be exaggerated. To many his death is a personal disaster. We mourn his passing with heartfelt sadness. His life and works shall never be forgotten.

Resolved, That a copy of these resolutions be preserved in the minutes of the society, be published in the *Bulletin*, and the *Journal of the Medical Association of Georgia*, be sent to the Atlanta Bar Association, and to the stricken family, expressing our deepest sympathy to them in their grief.

FRANK K. BOLAND, M.D., Chairman.

The number of compensation and pension cases on Veterans Administration rolls increased from 2,878,000 on October 1, 1948, to 2,879,000 on November 1—the first increase in six months. The peak was reached August 1, 1947, when VA reported 2,894,000 cases.

NEW BOOKS

CLINICAL AUSCULTATION OF THE HEART, by Samuel A. Levine, M.D., Clinical Professor of Medicine; and W. Proctor Harvey, M.D., Research Fellow in Medicine, Harvard Medical School. 327 pages, 6" x 9", with 286 illustrations.

How to use your stethoscope to best advantage in diagnosing diseases of the heart and how to interpret the sounds you hear—that's the kind of guidance you get in this unusual new book. The authors, both specialists in the field, demonstrate for you how your stethoscope can give you more information about cardiac disorders than you ever believed possible.

Yes, oftentimes auscultation is the only method of making a correct diagnosis in heart disease. And almost always it is the simplest, most economical, and most readily available method of suggesting a diagnosis that must be confirmed by other methods. In either case, you can get from this book a tremendous amount of new and useful information that you can't get anywhere else, because this is the only complete book on the subject in the English language!

Normal heart sounds are described so graphically that you can almost hear them as you read. Variations from the normal are carefully covered sounds like opening snap of the mitral valve and gallop rhythm. And of course, you get real help on identifying the sounds of such cardiac irregularities as ventricular flutter, auricular premature beats, nodal beats, coarctation of the aorta, pulmonary stenosis, etc.

The final section is devoted to a detailed discussion of how to recognize the typical sounds of miscellaneous disorders as pericardial friction, diaphragmatic flutter, arteriovenous fistula, dissecting aneurysm of the aorta and pulsus paradoxus, to mention just a few. Here is information you can use right now—information you can't get anywhere else. Order this new book now! Published by W. B. Saunders Company, 1949, Philadelphia. Price \$6.50.

* * *

CARE OF THE SURGICAL PATIENT, by Jacob Fine, M.D., Surgeon-in-Chief Beth Israel Hospital; Professor of Surgery (at Beth Israel Hospital), Harvard Medical School. 544 pages, 6" x 9", illustrated.

Everything you want to know about the care of the surgical patient—short of actual surgical technic—is explained for you clearly and helpfully in this brand new book. Surgical physiology (fluid and electrolyte balance, shock, etc.); mental care; nutrition; surgical infections; anesthesia; transfusions; complications; oxygen therapy—all these topics are very thoroughly covered, along with the ordinary aspects of pre- and post-operative care.

Mental care of the patient is especially emphasized. The author urges physicians to consider the surgical patient not as a "case" but as a human being, who is possessed of a personality, has an individual attitude toward his operation, and has, possibly, a coexistent medical disease. How to evaluate the patient's psychic status, what measures to take to alleviate anxiety, how to foresee and prevent possible psychiatric complications—these questions are answered in a specific and down-to-earth manner that reflects clearly Dr. Fine's long experience in this field. Typical of the useful guidance you will get here is this bit of advice: "Breast biopsy should be done under general anesthesia, for a shift from local to general anesthesia is a blunt admission to the patient that she has cancer, at a time when psychic trauma should be kept at a minimum." Published by W. B. Saunders Company, 1949, Philadelphia. Price \$8.00.

* * *

NEW AND NONOFFICIAL REMEDIES 1948, containing descriptions of the articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on June 15, 1948. Issued under the direction and supervision of the Council

on Pharmacy and Chemistry of the American Medical Association. Cloth. Price \$3. pp. 800. J. B. Lippincott Co., Philadelphia 5, 1948.

In a recent discussion some pointed criticism was made concerning the title of this book. It was contended that by the time a therapeutic agent is included in the book it is not strictly "new"; that, with the increasing frequency of pharmacopeial revisions the agent, if it carries out its original promise, will soon become "official," and that the drugs included are not "remedies" in the sense that they will cure a disease or, in themselves, restore health.

Granting the cogency of these points, it may also be pointed out that over the years the title, "New and Nonofficial Remedies," has come to represent or connote to the physician, for whom it is primarily intended, a source of needed information, weighed and sifted by representative and competent authorities, concerning the most valuable or promising agents of his current armamentarium. In view of this and of the difficulty of replacing or modifying well known and accepted designations, it would appear that only officious pedantry would dictate a change in the title.

An entirely new feature of the present volume is the section on the relation of the Council on Pharmacy and Chemistry to other bodies concerned with drug products and advertising. These include: The Food and Drug Administration, The Federal Trade Commission, The United States Public Health Service, The United States Treasury Department, The Post Office Department, The United States Pharmacopoeial Convention and The American Pharmaceutical Association. A brief but informative and valuable discussion of each of these agencies is given.

Some thirty-two new monographs appear, representing agents that have been accepted by the Council since the 1947 edition of the book. One notes many additions to the list of new generic designations recognized by the Council for products which have been accepted as marketed under protected names; critical examination reveals the care with which the various chapters and subclassified sections have been revised. The chapters on local anti-infectives and systemic anti-infectives are noteworthy in this regard, apparently by reason of the acceptance of a number of new preparations in these categories. A section on surface anti-infectives is new. A section on protein and amino acid preparations has been added to the chapter on "Agents Used in Metabolic Disorders."

An up-to-date medical library would not be complete without a copy of this valuable compendium.—*The Journal of the American Medical Association*, April 9, 1949.

SPECIALISTS' EARNINGS TOP G. P.'S BY 50 PER CENT

Medicine's specialists earn half again as much as the average net income of general practitioners, reports Medical Economics, national business magazine for physicians.

"No specialty in 1947 averaged less than \$19,000 gross or about \$12,000 net," according to figures from a nationwide survey published in its May 1949 issue. "Thus the lowest-paying specialty netted its average practitioner about \$2,500 more than the average net of G. P.'s."

Average net incomes of independent doctors in the seven top-paying specialties in 1947 are reported as follows: Roentgenology/radiology, \$20,319; obstetrics/gynecology, \$17,320; eye, ear, nose, and throat, \$16,068; surgery, \$16,011; psychiatry, \$14,774; neuropsychiatry, \$14,371; and ophthalmology, \$14,099.

"The disparity between the incomes of specialists and G. P.'s," the magazine concludes, "is increased by the fact that the G. P. spends 22 per cent more time practicing and sees almost 23 per cent more patients than the full specialist does."

BRITISH HEALTH SYSTEM WARNING TO U. S. DR. FISHBEIN SAYS

The British National Health Act has created a "monster bureaucracy" which overwhelms doctors with paper work and trivial complaints from patients, Dr. Morris Fishbein, Chicago, editor of *The Journal of the American Medical Association*, told representatives to the Federation of State Medical Boards of the United States at a recent meeting.

The federation is one of three organizations which made up the 45th Annual Congress on Medical Education and Licensure, held in Chicago.

Practice in England has, in many instances, been reduced to "a question and a prescription," and all sorts of deductions have been made from doctors' incomes for a variety of reasons that the doctors did not foresee, Dr. Fishbein said.

"Innumerable problems arise in relation to proper remuneration for medical service," he added.

"There is the question of filling out of forms in relation to prenatal care and the amount of money the doctor gets if he happens to miss one examination. There is the problem of the doctor who is called to attend a miscarriage without having made previous arrangements for maternity medical service.

"The doctor is sometimes called when a patient bleeds following extraction of a tooth. That raises an issue between the doctor and the dentist and the question as to whether the money comes out of the central pool."

Although the service is costing far more than the government estimated the word "free" is used constantly, such as in the statements that patients "receive free treatment" and that "medicines, drugs, and appliances are to be had free from any pharmacist who takes part in the scheme," he pointed out.

Guarantees of physicians' rights under the act promised by the Ministry of Health already have been violated, according to Dr. Fishbein.

"Dr. Guy Dain, who is chairman of the Council of the British Medical Association, and who, with the secretary of the British Medical Association, conducted most of the negotiations with the government, told the medical profession in the process of these negotiations that certain freedoms would be guaranteed by the Ministry of Health," he said.

"These included freedom of choice, freedom to do state and private practice, freedom of speech, clinical freedom, freedom to regulate the list of patients, and freedom to practice where the physician wished to practice provided he did not select an over-doctored area.

"The Fellowship for Freedom in Medicine, an organization of British physicians headed by Lord Horder, says that only one of Dr. Dain's freedoms for the doctor has not yet been interfered with, and that is the right to speak or write about medicine or the service without hindrance."

Although theoretically a doctor can decide how much private practice he would like to do, Dr. Fishbein explained, actually there are no private patients left for 93 per cent of the general practitioners in England.

The disappearance of private practice must have been contemplated by the ministry, he said, as a druggist cannot fill a prescription for a patient who consults a private doctor without charging, while a prescription filled for a doctor working under the act is provided to the patient without further cost.

"The evidence is clear that the medical profession accepted promises from the ministry which have never been fulfilled. Certainly we in the United States should be intelligent enough to learn from the record that such promises and guarantees are without any validity," he told the group.

"Today, after six months of operation of the National Health Act, the statements coming from British physicians themselves indicate that there has been a deterioration in the general quality of medical service.

"There is no reason to believe that a similar system would be any more efficient or satisfactory in the United

States. If a doctor tries to see 40 patients a day, he gives all of them less than what medicine requires. If he tries to see 100 patients a day with a view to developing an income, he is reverting to the kind of diagnosis and treatment that prevailed in a previous century.

"From data already available, the certainty exists that this monster bureaucracy removes from hospital and medical care all the personal spirit that has given to voluntary hospitals and individual physicians in the United States the leadership and the progress in medical science that are distinctive of our country."

VETERANS' NEWS

Veterans Administration during October, 1948, received 24,864 applications from lenders for guaranty and insurance of loans to veterans. The figure was the smallest for any month since January, 1946.

* * *

By November 1, 1948, Veterans Administration approved 1,486,080 G.I. loans totaling more than \$8 billion. Ninety per cent, or 1,337,548, were home loans; 48,034 were farm loans and 100,498 were business loans.

* * *

Veteran-patients spent more than \$1,500,000 in Veterans Administration hospital canteens during September, 1948. Average monthly purchases per patient were above \$7.

* * *

Patients in Veterans Administration hospitals borrowed an average of six books and magazines apiece from hospital libraries during September, 1948. Total library circulation during the month reached 739,000 volumes and unbound publications.

WANTED — Graduate class A medical school, member good standing medical association, for mental hospital. Age limit 60. Experience in psychiatry desirable, but not essential. Nice residences. Two colleges in immediate vicinity. Submit full information, three references and recent small photograph in first letter. Address, P. O. Box 325, Milledgeville, Ga.

WANTED—Pathologist for mental hospital. Member good standing medical association and eligible for license in Georgia. Diplomate National Board preferred, but not required. Salary open. Nice residence and partial maintenance. Submit full information, references and recent small photograph in first letter. Address Superintendent, P. O. Box 325, Milledgeville, Ga.

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CIRCULAR THIGH AMPUTATION FOR ARTERIOSCLEROTIC GANGRENE

JOHN G. DURDEN, JR., M.D.

WILLIAM G. WHITAKER, JR., M.D.

and

ROY L. ROBERTSON, M.D.

Atlanta

The large number of amputations of the lower extremities performed on the surgical services of Grady Memorial Hospital has afforded an opportunity for evaluation of the various methods currently used. Exclusive of those cases performed for trauma, the majority of amputations will fall into a heterogenous group consisting of arteriosclerotic gangrene, with or without diabetes; arterial embolism and thrombosis; and arterial insufficiency with ulceration and intractable pain. The patients are predominantly in the advanced age group, frequently exhibiting poor nutrition, concurrent constitutional diseases (diabetes, cardiovascular or respiratory) and varying degrees of local infection.

The purpose of this paper is to outline a plan of treatment which has proven satisfactory for the management of these cases by a changing house staff of a large teaching hospital.

Although it is acknowledged that each case should be individualized, there are certain factors common to this group which should be considered in the overall evaluation. Principal among these are the age of

the patient, the general condition, and the urgency of the surgical intervention. Other problems which frequently influence management are the presence of diabetes or other constitutional diseases, and the type and virulence of infection when present.

Method and Aim of Management

If age alone is considered, it is well to remember that with improved surgical and anesthesia technics, together with the present chemotherapeutic and antibiotic agents, surgery of the aged has extended its scope considerably. Hence, a policy of temporization or a defeatist attitude in dealing with the elderly patient is inexcusable. Each case should be evaluated regarding cardiac status and renal function, and indicated measures for the management of each carried out. Diabetes, if present, should be controlled. The diabetic patient is often critically ill, and a period of 24 to 48 hours of restorative therapy is imperative before emergency surgery can be undertaken.

The urgency of surgical intervention must be determined early. Surgery in those cases of dry gangrene without infection, where the general condition is good may be delayed, and amputation performed as an elective procedure. Patients with severe infection or toxemia will require either immediate surgical or physiologic amputation. By the latter is meant a standardized refrigeration technic, combined with an arterial tourniquet. This controls the absorption of toxins, relieves pain, prevents shock, and allows the election of an optimal time for amputation.^{1 2 3}

The ultimate aim of management is not only the removal of the gangrenous portion,

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but also those tissues which may later become ischemic, gangrenous or cause delayed wound healing. Therefore, it is often necessary to sacrifice tissues in which there is no apparent vascular insufficiency. Low thigh amputation is in reality a conservative approach, which largely eliminates stump necrosis due to vascular insufficiency, incident to amputations at lower levels. Tobias⁴ and Fite⁵ have made similar observations.

Anesthesia

Spinal anesthesia is used almost routinely for low thigh amputations in this hospital. Fifty to 75 mg. of procaine are administered intrathecally in the 4th lumbar interspace. Selective localization may be obtained by turning the patient on his side with the feet lowered, or by placing him in a sitting position. This technic has largely eliminated transient hypotension, inadequate segmental control, and other untoward effects, such as nausea, vomiting, apprehension, and dyspnea. This type of anesthesia allows the immediate postoperative continuation of the dietary management of the diabetic amputee.

Occasions arise in which continuous or "fractional" spinal anesthesia may be indicated for those extremely poor risk patients with marked arterial hypertension. This type of anesthesia allows instillation of small fractional doses of anesthetic agent over a time interval sufficient to minimize significant drops in blood pressure. In this manner a sensory response may be acquired, often without the marked vascular collapse that is at times noted with single dose spinal technics.

Refrigeration anesthesia has been recommended by a number of authors in the treatment of gangrenous extremities.^{1 2 3} There are, however, several factors along with certain inherent disadvantages of this method, which may lead to poor results. Special equipment is desirable for main-

tenance of the required temperature. Few surgeons have access to automatically controlled refrigeration units and must depend upon the use of ice, with cumbersome apparatus. Discomforts to the patient and problems for the nursing staff are the rule. Clinical and experimental investigation has shown that refrigeration lowers metabolism, causes edema in tissues, results in lowered tissue resistance to infection, and delays wound healing.^{2 5 7} In stumps which are refrigerated before and after amputation, there is excessive drainage of serum, and healing may be considerably delayed.

Modified refrigeration technics do find definite indication in those cases where the poor general condition of the patient requires a "physiologic amputation" for 24 to 48 hours or longer. This technic is not used as an anesthetic, but as a means for the temporary control of infection. This is accomplished by encasing the leg in ice up to the knee. An arterial tourniquet is then placed a few inches distal to the proposed site of amputation. Once this method is utilized, subsequent amputation becomes mandatory and the tourniquet should never under any circumstances be removed prior to amputation. The use of refrigeration in this manner accomplishes a physiologic amputation of the offending extremity, resulting in a dramatic clinical response, characterized by a precipitous drop in temperature and the rapid disappearance of signs of toxemia.

Technic

The leg, previously shaved from groin to mid-calf, is scrubbed with a soft brush, green soap and water for 2 or 3 minutes. It is then dried with ether and the skin prepared with a mild antiseptic. A sandbag is beneath the thigh to give moderate flexion at the knee. Drapes are arranged to exclude all the limb except the immediate operative field above the knee. Use of a rolled Mayo stand cover to slip over the foot and leg

allows freedom of manipulation.

A circular skin incision is made 3 cm. above the superior border of the patella and is carried around the thigh down to the deep fascia. The skin and subcutaneous tissues are allowed to retract proximally and the fascia and muscles sectioned at this level. The major vessels are delivered into the field by a finger passed from medial to lateral against the posterior surface of the femur. The artery and vein are separately ligated and transfixed with ligatures of No. 00 braided silk. The sciatic nerve is drawn down, sectioned and allowed to retract.

The muscle mass is next retracted and the femur sectioned 10 cm. above the abductor tubercle. The periosteum is left intact, the soft tissues being cleaned away by sharp dissection. A circular incision is made through the periosteum at the level desired and the bone cut with a hand saw perpendicular to the weight-bearing axis.

The soft tissues are allowed to fall into place over the bone end. Since there is a tendency for later retraction of the muscles, it is necessary at this point for the operator to assure himself that sufficient bone has been removed. Retraction in a stump with inadequate removal of bone results in necrosis of skin margins and protruding femur.

No attempt is made to close the muscles or fascia. The skin is closed transversely with interrupted sutures of No. 000 silk, and the resulting "dog-ears" on either side are removed by excising a small triangle of skin. When capillary bleeding is not controlled by hot compresses, when infection is anticipated, or when edema is present, the stump is drained. A small rubber drain is brought through a stab wound in the thigh posteriorly.

A loose fluff dressing is applied, with no attempt at compression with tight elastic wrapping. Skin traction is not necessary

and is not used. At the end of 48 hours, the dressing is changed, the wound inspected, and if a drain is present it is removed. By the third to fifth day, the patient is instructed in stump exercises. Sutures are removed on the fifth to seventh day.

Discussion

The traditional axioms of amputation surgery should not always govern the management of patients in this category. The conical stump is no longer necessary for the proper fitting and wearing of prosthetic appliances. The fashioning of long skin flaps and the use of compression bandages are unnecessary and may be a detriment to primary healing.

A small percentage of these patients will secure some form of prosthesis (ischial tuberosity weight-bearing or suction socket type). The larger number will probably be content with a life of restricted activity. The stump resulting from the low thigh amputation described above is suited for fitting with modern prostheses.⁸

The advantages of circular low thigh amputation are numerous. There is lowered incidence of wound infection. Healing is usually rapid, and is not complicated by the presence of skin flaps in which the blood supply is frequently inadequate. The hospital stay is shortened. The stump compares favorably with that of more complex and time consuming amputations. The simplicity of this procedure reduces the operating time and tendency for shock, with a corresponding decrease in morbidity. The stump is satisfactory from a cosmetic as well as a functional viewpoint. The phantom limb syndrome appears to occur with no increased frequency. No painful stumps have been encountered in this group of cases.

Summary

A plan of surgical management for the elderly patient with gangrene of the lower extremities has been presented.

The advantages of the circular low thigh amputation have been enumerated.

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THE USE OF ANTICOAGULANTS IN SURGICAL PRACTICE

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All through medical history the clotting of blood has occupied physicians and surgeons. This interest has generally been in hemostasis and how to stop bleeding. Without coagulation of the blood, sustained life would hardly be possible. In addition to ligatures, tourniquets, and packs the surgeon now employs thrombin, fibrin, oxidized cellulose, and gelatin sponges to aid this mechanism.

Gradually however has come the realization that this clotting process is not always beneficial, that often it hinders recovery and adds great danger to life and limb. The outstanding example of this harmful effect is deep venous thrombosis of the extremities shown to run as high as 1 per cent of all hospital patients.¹

This incidence rises sharply in the aged, in cardiovascular disease, and in lower abdominal surgery. Figures from the Mayo Clinic show that 4 per cent of all abdominal hysterectomies develop postoperative thrombosis and 0.7 per cent have fatal pulmonary emboli.² At the Massachusetts Gen-

eral Hospital a series of 458 operative cases in patients over 65 years of age developed venous thrombosis in 12 per cent and fatal embolism in 5 per cent. This has led them to recommend bilateral femoral vein ligation prior to major surgery in all patients over 65.³ Also, venous thrombosis and resulting pulmonary embolism is not a strictly surgical disease, as 50 per cent of the cases occur as a consequence of purely medical disease with cardiovascular conditions predominating.¹

In surgery, the past few years have seen a great interest in controlling intravascular clotting. This has been due to a better understanding of the nature of the problem, the extension of surgical therapy to larger fields, and the development of effective anticoagulants. It is with the use of these as adjuncts to various surgical procedures, and treatment of complications, that this paper is concerned.

To understand the action of the anticoagulants it is necessary to recall briefly the clotting mechanism. Blood normally contains prothrombin, fibrinogen, and calcium. For a clot to form it is necessary first to convert prothrombin into thrombin, an enzyme that changes fibrinogen to fibrin which is the base of the clot.⁴

The two substances that have been found to be effective in the human to stop this reaction are dicumarol and heparin.

Dicumarol interferes with coagulation by reducing the prothrombin activity in the blood. It must be given by mouth and checked by careful daily prothrombin time determination done by the Quick method. Its action is slow, requiring about 48 hours to reach a maximum. This effect may be counteracted by very large doses of synthetic vitamin K and blood or plasma. It is contraindicated in bleeding disease, gastrointestinal tract cases which may bleed, central nervous system surgery, and severe liver and kidney disease. In a series of

1686 cases at the Mayo Clinic, minor hemorrhage occurred in 3.1 per cent of cases and major hemorrhage in 1.9 per cent with two deaths, both extensive gastro-intestinal resections.²

Heparin, the second drug, prevents the action of thrombin on fibrinogen. It must be given parenterally and is very rapid in action. It is more expensive and more difficult to use than dicumarol. However, each drug has its place and often they are supplementary. There are many ways of giving heparin but the intermittent intravenous dose of 50 mg. of sodium heparin every four hours or the daily dose of 300 mg. of heparin in Pitkin's menstruum is believed to be best at present. Heparin has the same contraindications that dicumarol has and may be counteracted by blood or blood plasma and stopping the drug.

As to the therapeutic application, these drugs have proven quite effective in preventing intravascular clotting if carefully controlled. Used prophylactically in several series of cases, anticoagulants have been shown to prevent the occurrence of post-operative thromboembolism.^{2,5} While it is not always practical to use them routinely, it is felt that they are definitely indicated in cases in which postoperative intravascular clotting is more likely to occur. These are abdominal hysterectomy and other lower abdominal operations, especially in older persons; those who cannot be gotten out of bed early, patients with varicosities, those who have had previous thromboembolism or thrombophlebitis, and patients with cardiovascular disease, etc. Two cases will be mentioned to illustrate this use.

Case 1. White female, aged 58, had abdominoperineal resection for adenocarcinoma of the rectosigmoid. Due to some operative shock the peritoneal floor was closed and the perineal part of the operation deferred 48 hours. This was done on the second day, and on the third postoperative day dicumarol was given, 300 mg. by mouth, and 200 mg. more on the fourth day. On the fifth day the prothrombin activity was 4 per cent. The patient was not bleeding, and the next day the prothrombin activity was 19 per cent. It was maintained below 35 per cent until the patient was fully

ambulatory on the twelfth day. No evidence of any thrombosis was noted.

Case 2. White female, aged 51, developed acute thrombophlebitis in left leg six days after a right kidney operation. The femoral vein was ligated and patient received lumbar sympathetic blocks and dicumarol with complete recovery in two months. Five months later it was felt necessary to remove the right kidney. This was done, and dicumarol 300 mg. administered on the second day postoperatively. The patient was gotten out of bed early and the prothrombin time kept reduced until she was fully ambulatory. No further episode of thrombosis occurred.

Another use for these drugs is in vascular injuries and in surgery on the major arteries and veins. Such procedures as the re-establishment of continuity of lacerated arteries by suture or non-suture methods, and the anastomosis of splenic to renal vein in portal hypertension, depend for success in large measure on preventing thrombosis. Following splenectomy and in mesenteric thrombosis further thrombosis is very likely to occur and the use of anticoagulants is advisable.

Case 3. Colored male, aged 21, was admitted to the surgical service of Macon Hospital with penetrating stab wound right upper quadrant. There were no signs of shock. The abdomen was explored through an upper right rectus incision and the wound was found to have lacerated the duodenum and entered the head of the pancreas. The second portion of the duodenum was mobilized and a 2 cm. laceration in the inferior vena cava found. Bleeding was controlled by pressure and the laceration in the vein sutured with fine runningatraumatic chromic catgut. The duodenum was repaired and the abdomen closed without drainage. Patient was given dicumarol from second postoperative day through the fourteenth when he was fully ambulatory and left the hospital. He made an uneventful recovery and had no sign of vena caval obstruction.

Case 4. White male, aged 79, was admitted to Middle Georgia Hospital September 1948 with a history of 24 hours abdominal pain and shock. X-rays suggested an intestinal obstruction and at operation mesenteric thrombosis of a segment of the mesentery of the mid-small bowel was found. Approximately four feet of gangrenous ileum were resected and end-to-end anastomosis with proximal enterostomy done. Shock was combatted with blood and stimulants. On return to his room Heparin-Pitkin (300 mg.) was given subcutaneously. This was repeated in 48 hours. At end of 72 hours the Levine tube could be removed and dicumarol given by mouth. Prothrombin activity was kept below 40 per cent for three weeks, when patient was gotten out of bed. During this time he was critically ill, fibrillated and had to be digitalized. He developed wound infection but this subsided and the enterostomy closed. The patient left the hospital in four weeks fully ambulatory. He has remained well to the present time, living an active life.

Comment: Case 3, the stab wound of the vena cava, might have done just as well without anticoagulant therapy. However, it was felt that early ambulation would be

dangerous to the suture line in the vein and also that the damaged vessel might thrombose above the renal veins. Therefore, dicumarol therapy was definitely indicated.

Case 4 represents a complete recovery from a vascular catastrophe that carries a very high mortality. Many factors took part, but it is felt very strongly that the prevention of further intravascular clotting contributed greatly to this satisfactory outcome.

In discussing the therapeutic employment of anticoagulants, two major groupings of cases will be made. These are venous thrombosis, thrombophlebitis and thromboembolism on the one hand, and arterial embolism and thrombosis on the other. In a recent paper (to be published elsewhere) I reported an analysis of 27 cases of thrombophlebitis. In this series it was brought out that venous thrombosis, phlebothrombosis and thrombophlebitis are probably all different degrees of the same process, and that in surgical patients they constitute a real hazard to life and limb and result from slowing of the circulation and increased coagulability of the blood. These are especially dangerous in lower abdominal surgery, older patients, and those in whom early ambulation cannot be practiced. As mentioned above, these diseases can be prevented or if they do occur can be halted by early active therapy, and the disability greatly reduced. In cases where non-fatal pulmonary embolism has occurred immediate application of heparin and dicumarol will prevent further embolism and allow the disease to subside.⁵ This should be done whether vein ligation is practiced or not.

Case 5. White female, aged 71, was admitted to Middle Georgia Hospital July 19, 1946, with a history of RUQ pain and fever for one month. While undergoing diagnostic study the pain in the right calf was noted July 30, and pain in right chest occurred the following day. Diagnosis by x-ray was pulmonary infarct. Operation: Under local anesthesia the right femoral vein was ligated just below the profunda branch. Patient was given dicumarol and the phlebitis subsided. On August 7 a blood transfusion was given, and on August 8 cholecystectomy and drainage of subphrenic and subhepatic abscess were done. On August 10 the left femoral was tender and calf phlebitis appear-

ed. Dicumarol (300 mg.) was given at once, and on August 11 another 200 mg. were given. Prothrombin activity fell to 7 per cent and the phlebitis gradually cleared. On August 27 the patient went home. She has remained reasonably well to the present time and has very little postphlebitis sequelae. This patient's severe primary disease was complicated by thromboembolism, and only control of the latter permitted a satisfactory attack on the first.

Case 6. Colored male, aged 38, suffered a compound fracture of the left upper tibia May 3, 1947 and was treated by wound debridement, open reduction and plaster cast. On June 20, over six weeks after injury while still in cast, he had a sudden sharp pain in left chest with dyspnea and hemoptysis. He was quite tender over the left iliac and femoral veins. Patient re-admitted to hospital and a diagnosis of pulmonary infarct made. Heparin-Pitkin (300 mg.) was given subcutaneously, and dicumarol 300 mg. by mouth. The latter was kept up until June 30 when he went home on crutches. He then made an uneventful recovery and has only mild residual swelling in the left leg.

Comment: This patient was very active when he suddenly had a pulmonary embolism from the injured leg. After institution of heparin and dicumarol therapy, he had no further emboli and the phlebitis quickly subsided.

Peripheral arterial embolism and thrombosis occur usually in those whose cardiovascular systems are damaged. If the process can be halted and further clotting prevented collateral circulation may develop to save the limb. Dicumarol and heparin relieve the pain of embolism.

Case 7. White male, aged 35, was on the medical service at Macon Hospital for subacute bacterial endocarditis. He developed sudden severe pain in the right leg. From physical examination the next day, a diagnosis of embolism of the femoral artery just below its profunda branch was made. The foot was cold to above the ankle. Right lumbar sympathetic blocks were instituted, heparin was given intravenously and dicumarol started. Gradually the ankle and foot warmed up until only the first and second toes were blue. Although the dorsalis pedis and posterior tibial pulses could not be felt, the foot was thought to be viable. After three weeks the patient developed heart failure, ran a progressive down hill course and died of his endocarditis, apparently having handled his embolism very well.

Comment: Had this patient not been so desperately ill and had he been seen earlier, embolectomy followed by heparin would have been indicated. Often, however, surgery was not possible, and even in these a great deal can be done by early institution of anticoagulant therapy.

Summary and Conclusion

Intravascular clotting constitutes one of the great hazards of surgical as well as

medical practice. It has been fully demonstrated that this process can be prevented by anticoagulant therapy or halted if it has already begun. There is some danger of bleeding while using dicumarol and heparin, but this is slight provided proper precautions are taken and careful laboratory checks are used. At this time it can be seen that anticoagulant therapy is a potent adjunct to surgical practice, and as such warrants careful consideration.

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INSULIN MIXTURES IN DIABETES

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Soon after the introduction of insulin in 1922 the relatively short duration of action of the preparation with the consequent necessity for repeated injections became apparent. Efforts were made to retard the action or to develop a preparation which would exert its effect over a longer period of time. Insulin was mixed with 20 per cent solution of gum arabic.¹ Delayed absorption was sought by the addition of protein.² Various oils were employed to delay absorption.³ Various other combinations were devised, but all these proved unsatisfactory. The first real advance came in 1935 with the preparation and clinical trial of protamine insulin by Hagedorn and associates at the Steno Memorial Hospital, Gentofte, Denmark. The action of this preparation extended over some twelve to fifteen hours. With the addition of a small

amount of zinc, the length of action was greatly prolonged. The present market protamine zinc insulin has a duration of effect twenty-four to forty-eight hours.⁴

Four types of insulin have become available for routine treatment of diabetes. They are insulin, protamine zinc insulin, globin insulin with zinc, and mixtures or modifications of protamine zinc insulin.

In using the term ordinary insulin, we mean both forms of insulin in solution, "regular", or solution of amorphous insulin, and "crystalline" or solution of zinc insulin crystals. The only difference of importance between these is that "regular" insulin occasionally leads to allergic reactions because of its inert protein content, whereas the crystalline form is much less likely to do so because of its freedom from foreign protein.⁵ On the average, the response to a single subcutaneous dose of ordinary insulin is demonstrable within an hour, reaches its peak in from three to six hours after injection, and is exhausted in about eight to twelve hours.⁶ Unmodified insulin is most useful whenever prompt and intense effect is desirable and prolonged effect is of little or no importance. It is the insulin of choice in emergencies where quick action is essential. Ordinary insulin is useful in supplementing depot insulin effects when necessary. Also a few patients find ordinary insulin more practical for routine use without any depot preparation, even though multiple daily injections are required.

The effect of protamine zinc insulin is demonstrable in four to eight hours, reaches a prolonged peak at about twenty-four hours, and is exhausted at the end of about three days. In mild diabetes control is most satisfactory with protamine zinc insulin. However, in severe diabetes there is a tendency for glycosuria to appear after meals even though the daily dosage is high enough to cause hypoglycemia during fast-

ing. Thus in severe diabetes treated with large doses of protamine zinc insulin one is apt to have alternating glycosuria and insulin shock. For these reasons it has been customary to reduce the dosage of protamine zinc insulin to the point where fasting hypoglycemia fails to occur, and correct the postprandial glycosuria by the supplementary use of small doses of ordinary insulin given by separate injection, usually before breakfast and perhaps before the evening meal as well. This produces better control than protamine zinc insulin or ordinary insulin used alone, but involves multiple injections daily, the very thing protamine zinc insulin was designed to avoid.⁵

The effect of a single large dose of globin insulin with zinc is recognizable in two hours. Its peak effect is reached in eight to twelve hours, and the duration of effect is about twenty-four hours. Globin insulin, like protamine zinc insulin, controls mild diabetes easily. It is particularly useful when the postprandial sugar level is high but the fasting level tends to be proportionately lower. The disadvantages of globin insulin are that in a large single daily dose it exhibits a decided tendency to cause late afternoon insulin shock, and it often wanes so rapidly in effect that an overnight rise in the sugar level occurs with the appearance of heavy glycosuria before and after breakfast. In daily morning injections there is an inadequate overlapping from one day to the next and insufficiently rapid effect in the first few hours after injection to permit a full breakfast.⁵

During the past several years attention has been directed toward the development of a technic whereby an insulin preparation having an intermediate effect might be mixed extemporaneously, and "tailor made" to fit the needs of each patient. This procedure may be accomplished by the use of the standard preparations which are already on the market. The dose of un-

modified insulin is drawn into the syringe first and followed by the proper quantity of protamine zinc insulin. The total dose is then mixed by rolling an air bubble through the syringe before making the injection. If preferred the insulin may be premixed in a vial in the physician's office. Mixtures are always made from preparations having the same concentration (either 40 or 80 units per cc.). The advantage of this method lies in its simplicity and its adjustability to individual cases. At the same time, it permits the patient to take all his insulin for the day in a single injection, before breakfast in the morning. He is not exposed to the same risk of nocturnal hypoglycemia as is the case when large doses of protamine zinc insulin are given, since the most common time for hypoglycemia will be in the afternoon. The patient is then awake and may be on guard against it.⁷

In this report, use of the term "mixture" is restricted to those combinations of insulin and protamine zinc insulin which are either prepared extemporaneously in the insulin syringe or have been premixed in vials and the ratio (e. g., 2:1), refers to parts of insulin and protamine zinc insulin respectively in terms of units. A 2:1 mixture is not a 2:1 mixture in the true sense of the word. For example, 20 units of insulin mixed with 10 units of protamine zinc insulin gives approximately 15 units of quick-acting and 15 units of prolonged-acting insulin. (For further details refer to Peck, Franklin B., "Mixtures of Insulin and Protamine Zinc Insulin" *Annals of Internal Medicine*, Vol. 18, P. 179, Jan.-June 1943). The reason for this is that protamine zinc insulin has an alkaline reaction, whereas regular insulin has an acid reaction. Also protamine zinc insulin contains an excess of protamine, which acts to precipitate out the regular insulin which has been added. The resulting mixture is an entirely different insulin.

Patients vary greatly in their demands for insulin, and there is an almost total lack of uniformity of diet prescriptions in this country. In the face of such widespread variability it seems very doubtful that any one standardized modification will even be capable of providing in a single daily injection the much desired twenty-four hour control of blood sugar levels of patients having diabetes of all grades of severity. In order to meet differing demands, "mixtures" extemporaneously adjusted to fit individual needs may be prescribed.⁸

The use of mixtures is primarily an attempt to accomplish with a single injection results which are as good, or better, than were previously obtained with multiple injections. In a series of one hundred forty patients treated with mixtures Peck⁸ found that 70 (50 per cent) required fewer units while taking a mixture; 55 (39 per cent) received the same dose; 15 (11 per cent) required a larger dose. Of these 140 patients, 9 (6 per cent) were satisfactorily managed with a 1:1 combination; 22 (16 per cent) with 3:2; 98 (70 per cent) with 2:1; and 11 (8 per cent) required 3:1.

The method of adjustment of a patient to a mixture is as follows:

1. Replace total of multiple injections with single dose of 2:1 mixture.
2. If daytime glycosuria and hyperglycemia persist, increase insulin content, e.g., 2½:1, 3:1.
3. If fasting glycosuria and hyperglycemia, increase amount of protamine zinc insulin in mixture, e.g., 3:2.
4. If both periods are poorly controlled, increase the total amount of the 2:1 mixture.
5. If the patient is on a single daily dose of protamine zinc insulin, but inadequately controlled, replace the total dosage with an equal amount of 2:1 mixture and then readjust according to steps 2, 3, and 4.
6. Treatment may be started directly with 10 to 20 units of a 2:1 mixture, and

the dose then increased or decreased depending on the response.

The single injection is always given before breakfast each morning. The dose of protamine zinc insulin is governed by the blood sugar level as determined before breakfast while the amount of insulin in the mixture is regulated according to the findings in the postprandial blood sugar determinations, or the 11, 4 and 9 o'clock urine tests. If postprandial levels rise unduly, a greater proportion of insulin is needed in the mixture. If daytime reactions occur less insulin is prescribed.

There are times when a ready-prepared mixture is more practical than one made in the syringe by the patient. It has been our practice to give patients the desired mixtures premixed in vials in an amount sufficient for two or three weeks. This is less confusing to the patient, and the results have been comparable to those in which the patient made his own mixture in the syringe. Palmer⁹ reported that in his two years experience with insulin mixtures 25 per cent of the patients on mixtures were better controlled when the mixture was prepared in a vial rather than daily in a syringe.

During the past two years, we have placed all our diabetic patients who require 40 or more units of insulin, or who were not satisfactorily controlled on protamine zinc insulin, on a premixed combination and have noted an improvement in diabetic control following treatment with the mixtures. This is in agreement with previous reports made by Colwell, et al,^{10 11} and by MacBryde and Roberts^{12 13}.

That infections do not necessarily contraindicate the use of mixtures has been shown by Peck¹⁴ in a reported series of cases of infections complicated by diabetes and treated with penicillin. If a patient taking a mixture develops a complication or requires surgery, the basic dose is usually continued unchanged and, if necessary, sup-

plementary doses of unmodified insulin are prescribed.

There is general agreement that an insulin with time action intermediate between ordinary and protamine zinc insulin produces advantages over both of these standard preparations, particularly in severe diabetes. Each case of diabetes is an individual problem and the insulin mixtures, by means of their flexibility and adaptability to individual requirements, give us a decided advance in the treatment of diabetes, which is practical and effective.

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U. S. CIVIL SERVICE NEWS

The United States Civil Service Commission has announced a Medical Officer examination for filling rotating intern, psychiatric resident, and surgical resident positions in St. Elizabeths Hospital, Washington, D. C. The salaries for rotating interns are \$2,200 for the first year and \$2,400 for the second year; the salaries for psychiatric resident range from \$2,400 to \$4,100 a year; and for surgical resident, from \$3,400 to \$4,150.

To qualify, applicants for the rotating intern positions must be third- or fourth-year students in an approved medical school. Applicants for psychiatric resident and surgical resident positions must be graduates of a medical school with the degree of doctor of medicine, and must have completed a full year in an approved rotating internship. In addition to the above requirements, applicants for appointment as surgical resident must have completed three full years as residents-in-training in surgery in an approved residency. No written test is required for this examination. The maximum age limit of 35 years is waived for persons entitled to veteran preference.

Further information and application forms may be obtained at most first- and second-class post offices, from civil service regional offices, or from the U. S. Civil Service Commission, Washington 25, D. C. Applications will be accepted by the Commission's Washington office until further notice.

INGESTION OF FOREIGN OBJECTS NECESSITATING GASTROTOMY

Report of Four Cases

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and

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Augusta

There is nothing rare about the presence of foreign bodies in the human stomach. From earliest childhood the mouth is a logical depository for objects grasped in the hands. In later life the accidental swallowing of objects held in the mouth is not uncommon. For adults to swallow intentionally objects not meant for food is, to say the least, abnormal. In general, persons who consume foreign bodies fall under the mental classification of patients with dementia praecox. The exact motive behind such abnormal acts has not been established, although the generally accepted theory is that they in some way afford the patient sex gratification.

Recently we had occasion to remove a great variety of unusual foreign bodies from the stomach of an insane patient. This case and 3 other cases, in all of which gastrotomy was performed, are here reported.

REPORT OF CASES

Case 1. J. S., a white man, was admitted to a mental hospital at the age of 23 years. He had received a high school education, but aside from selling newspapers had never been gainfully employed. His commitment papers revealed that he had been seclusive, obstinate and selfish most of his life.

Upon examination it was noted that he was in a delusional and introvertive state. After six years he became destructive and particularly antisocial, showing increased delusional trends. It was not, however, until fifteen years after admission to the institution that he began to swallow unsuitable objects. At that time roentgenograms showed several foreign bodies in the stomach and intestines. Under strict isolation and observation, he was treated conservatively and eventually passed several pieces of glass, metal, matches and peach seeds.

Gradually the vigil was relaxed, and about three years later a great quantity of foreign matter had accumulated in the stomach. Gastrotomy was per-

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Case 4 has been added since the paper was presented.

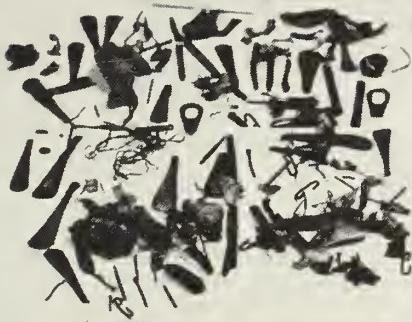


FIG. 1
Objects removed from the patient's stomach at a previous operation in Case 1.



FIG. 2
Roentgenogram showing the large amount of metallic foreign substance in the stomach prior to operation in Case 1.

formed, and the following objects were recovered: 22 metal spoon handles, 1 complete spoon, 10 tongue blades, 8 nails, 2 buttons, 3 pencils and several small pieces of wood (fig. 1). Recovery was uneventful.

A little over a year later it was discovered that he had again reverted to the old habit. Although there was a large quantity of radiopaque material in the stomach, nothing was done about it because he was able to take a regular diet and seemed in good health. Six months later signs of duodenal obstruction began to occur. He vomited frequently, and loss of weight was pronounced.

At that time we were asked to intervene. Gastrotomy was performed through an upper left rectus incision, and the following objects were removed: 115 spoon handles, 3 snuff box tops, 12 pieces of glass, 1 pen staff, 1 pencil, 1 nickel, 1 dime, 19 nails, 2 bobby pins, 3 buttons, 45 popsicle sticks, 8 other pieces of sticks, 1 ball of string and 2 parts of a zipper (figs. 2 and 3). The total weight of these objects was 3 pounds 14



FIG. 3
This is the material shown in the roentgenogram in figure 2.



FIG. 4
Nails removed from the intestinal tract in Case 2. Some of them had perforated the intestine.

ounces.

Postoperatively, there was a slight infection of the wound. The patient recovered, however, without serious difficulty.

Case 2. H. S., a Negro man, was admitted to a mental hospital at the age of 20. He had completed the sixth grade in school, but had always been considered below average in intelligence and had not been self supporting. He had never been able to get along well with other people and was seclusive. In the institution he admitted hearing imaginary voices, and the delusional state was diagnosed as dementia praecox. He was allowed to have a small job and did it well.

About three years after admission the patient became suddenly ill with abdominal pain. He was treated conservatively until it was decided that surgical intervention was indicated. An exploratory operation was then performed. Nails were found protruding from several perforations in the small intestine. They were removed, and the perforations were closed. Following the operation the course was stormy, and on the fifteenth postoperative day the patient died of general peritonitis. In all, 97 nails were removed from the intestinal tract (fig. 4). Probably because of his



FIG. 5

This unusual roentgenogram shows, among other articles, three pairs of spectacles swallowed by the patient in Case 3.

seclusiveness, his habit of swallowing nails was not known, nor was it suspected prior to operation.

Case 3. M. S., a white woman, married at the age of 35 years into a hopeless situation. Poverty was made worse by an in-law, a drug addict, who stole her rings to buy drugs. A short time after her marriage she was admitted to a mental hospital.

In the institution her physical condition was good, but she was in a highly delusional state. At first she was thought to be psychoneurotic and influenced largely by her environment. After she was carefully studied, however, and treated for years without improvement, her condition was diagnosed as dementia praecox.

It was not until sixteen years after admission to the mental hospital that she began swallowing foreign bodies. At this time the unusual roentgenogram shown in figure 5 was made. At operation, the stomach was relieved of 3 pairs of spectacles, all with lenses and frames intact, 30 pencils, 2 teaspoons, 2 tooth brushes, 1 spoon handle, 1 ring, $\frac{1}{2}$ ice pick, 1 chain and crucifix, 3 beads on a string, 8 hairpins and a rubber band (fig. 6). Except for a slight infection of the wound, recovery was uneventful.

Case 4. H. H., aged 18, was committed to a mental institution in April 1948. He had completed the first grade in school, had been unable to adjust and had always been regarded as mentally defective. His father was a patient in a mental hospital, his mother was "simple-minded," and an uncle was insane.

When the patient came under our observation in December 1948, he had complained for approximately six months of "upset stomach." For four weeks there had been nausea and vomiting, and he had been taking only a liquid diet. It was reported that he had been eating paper and rags frequently.

On examination, the patient was frail and anemic. A tender, elongated mass, irregular in shape, was palpable in the epigastrium. Roentgen examination showed an irregular filling defect involving the cardiac end of the stomach.

Gastrotomy was performed, and the foreign body was removed. Multiple adhesions, adherent to the liver and firmly fixed, were encountered along the lesser curva-



FIG. 6
The objects shown in figure 5 are here displayed postoperatively.

ture of the stomach. In one of these areas a penetrating ulcer 3 cm. in diameter was observed; the specimen taken for biopsy gave, however, no evidence of malignant disease.

The foreign body removed was a cucumber-shaped mass 10.5 by 3.5 cm. in size, black and hard, though brittle. It contained clotted dried blood, hair, paper, rags and a large number of prune seeds.

The postoperative course was without incident. Three weeks after the operation, roentgen examination of the stomach revealed no abnormality.

Comment

The problem of ingestion of foreign bodies necessitating gastrotomy is seldom encountered in an average practice, but it is one that is difficult to solve wherever it arises. Despite the best efforts put forth in most mental institutions, gastrotomy will occasionally become necessary. In our opinion, mental patients with real symptoms referable to the abdomen should be subjected to roentgen examination for the purpose of ruling out the presence of foreign material in the gastro-intestinal tract.

Summary

Four cases have been described in which the patients deliberately swallowed a great variety of objects not meant for the alimentary canal and, in consequence, had to undergo gastrotomy. Illustrations showing roentgenograms and photographs of the recovered material were also presented. The cause and prevention of parorexia, or perverted appetite, in mental patients have been briefly discussed.

STATE STERILIZATION IN GEORGIA

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Sterilization of the insane and feeble-minded has been advocated to prevent the transmission of their mental handicap and to protect potential children from being brought up under almost inevitably unsatisfactory conditions. It may be likened to the attempts to control an epidemic in that it eliminates the possibility of some of the carriers transmitting the defect to the next generation. At no sacrifice, the patient is protected from the additional handicap of bearing children to inherit his mental disease or deficiency, and the state is spared the burden and expense of caring for such children.

The first eugenic sterilization law was passed in Indiana in 1907. Similar laws were soon passed in a number of states until there are now 27 in which they are operative. The legality of such laws was firmly established by means of a test case carried to the United States Supreme Court by the heads of the state mental institutions in Virginia. The decision, rendered in 1927, included the now well-known sentence "Three generations of imbeciles are enough."

Georgia's law, passed in 1937,¹ is the most recent among the states though it is older than Puerto Rico's passed in 1939. It provides for a state board of eugenics consisting of the chairman of the state board of control, the director of the state board of health and the superintendent of the Milledgeville State Hospital. If the superintendent of a state institution believes that a patient, if released, would be likely to procreate a child who would have a tendency to serious physical, mental or nervous disease or deficiency, the superintendent after consulting with his medical staff

shall recommend to the State Board of Eugenics that the patient be sterilized. If the board approves, an order is sent to the superintendent directing him to proceed. Appeal to the courts is provided for, if the patient or his family are dissatisfied with the order.

Statistics collected by the Human Betterment Foundation of California and Birthright, Inc., give the numbers of sterilizations under these laws reported by state institutions. Because of the later passage of the law, Georgia's total of 542 operations at the end of 1947 is small when compared with other states. California with 18,716 heads the list, followed by Virginia with 5,232 and Kansas with 3,001.

For comparisons among the states the population must be taken into account. The sterilizations per 100,000 inhabitants have, therefore, been calculated and are given in Table 1 and Chart 1. Georgia, with a total of 17 per 100,000 is twenty-third among the 27 states. The 24 cases operated on in 1947 amounted to 0.7 per 100,000, giving Georgia sixteenth place. This is only one-thirteenth of Utah, the most active state, and one-fifth of Georgia's neighbor, North Carolina.

To smooth out the variations from year to year the rates for the five years 1943 to 1947 inclusive have also been calculated. Georgia, with 70 per year or 2.2 per 100,000 occupies twelfth place. The maximum activity was in 1943 when 97 persons were protected.

Estimates of the prevalence of feeble-mindedness have varied from 1.2 to 3.2 per cent.^{2,3} If the conservative value of one per cent is used there are 32,300 mentally deficient persons in Georgia. This is 96 times the 337 feeble-minded who have been protected from parenthood. The assumption that the mentally deficient live on the average of 50 years indicates that there are at least 646 new cases added to this group

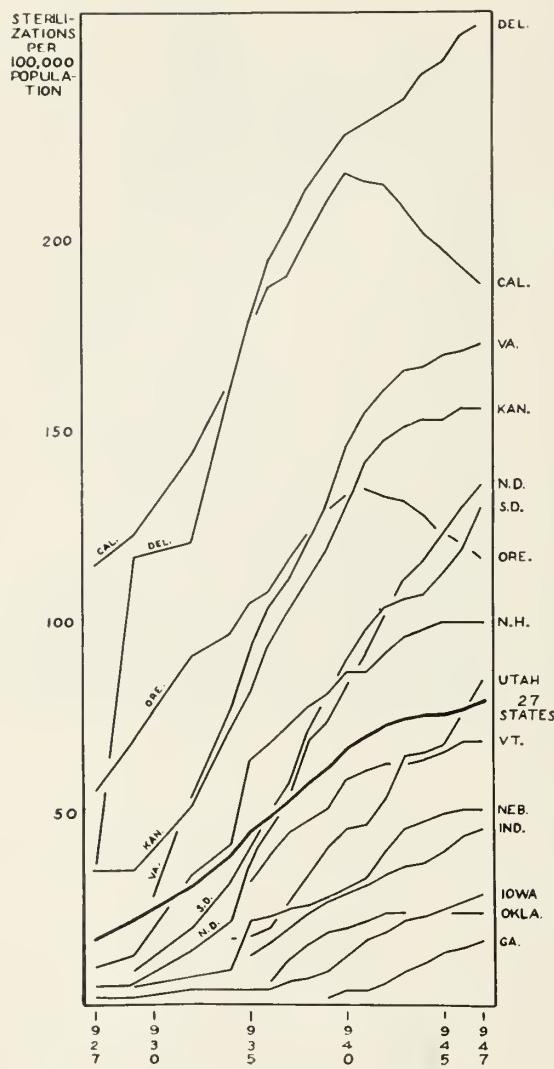


Chart 1. Sterilizations per 100,000 population. Note names of states.

each year. The 22 tubectomies for mental deficiency in 1947 are only 1 in 29 of these.

The adequacy of the program for the sterilization of the psychotic patient is more difficult to estimate. Many cases do not need protection because of age or the mildness of the disease. Reports for 1944, the most recent year for which they are available, show that there were 1337 first admissions with psychosis to Georgia state hospitals, and 699 deaths of psychotics.⁴ The difference of 638 will, in the long run, equal the number of first discharges with psychosis. This is 319 times the two sterilizations of psychotics in 1947. When one considers that many of these patients are

TABLE 1
Sterilizations Reported by State Institutions
per 100,000 Population
(Compiled from the reports of the Human Betterment Foundation and of Birthright, Inc.)

Total Sterilizations to Jan. 1, 1948	Sterilizations per Year	
	1943-1947	1947
Del. 256	Del. 7.6	Utah 9.1*
Cal. 189	Utah 6.9	S. D. 8.2*
Va. 173	Va. 5.2	Del. 5.1
Kan. 156	Cal. 4.8	Cal. 4.1
N. D. 136	N. D. 4.3	Va. 4.0
S. D. 130	N. C. 3.4	N. C. 3.7*
Ore. 117	S. D. 3.1	N. D. 3.1
N. H. 100	Ind. 3.0	Iowa 2.7*
Utah 85	Kan. 2.9	Ind. 2.3
Minn. 76	N. H. 2.9	Ore. 1.9
Vt. 69	Ore. 2.6	Mich. 1.9*
N. C. 53	Ga. 2.2	Kan. 1.5
Neb. 51	Neb. 2.1	Mont. 1.2*
Wis. 49	Iowa 2.1	N. H. 1.1
Mont. 48	Mich. 1.6	Wis. 1.1
Ind. 46	Vt. 1.4	Ga. 0.7
Mich. 46	Wis. 1.3	Neb. 0.5
Iowa 29	Mont. 1.1	Miss. 0.5
Miss. 28	Minn. 0.7	Me. 0.3
Me. 25	Miss. 0.5	Conn. 0.3
Conn. 25	Conn. 0.4	Minn. 0.03
Okl. 24	Me. 0.3	
Ga. 17	S. C. 0.2	
S. C. 4	W. Va. 0.01	
27 States having sterilization laws 81	2.3	2.1

Populations interpolated from U. S. Census for 1940 and estimate for 1947.

* 1947 rate greater than 1943-1947.

capable of producing children but incapable of rearing them, it would seem that a greater number deserve protection.

The average physician is generally confronted with relatively few cases of psychosis or of mental deficiency. Those that do come to him he is apt to transfer to specialists or to state institutions. It might appear, therefore, that he has but a small role in his state's sterilization program. There is, however, a very real task for the physician with an average practice in the protection of the mentally handicapped, and, even more important, that of their

potential offspring.

Sterilization is almost never performed without the consent of the patient or of his or her family because of the administrative difficulties involved. Permission for tubectomy is often difficult to secure because of the widespread confusion in the mind of the laity between this and castration. The patient and his family are apt to fear that the effect on sexual characteristics and satisfaction associated with castration will follow sterilization. Each physician can do much to safeguard the next generation if he will let his practice know that nothing is removed from the body and that no changes are produced in normal functions other than the desired one, that no children are produced.

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NUTRITIONAL STATUS OF SCHOOL CHILDREN IN GRADY COUNTY AND A PLAN FOR A NUTRITION PROGRAM

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Introduction

The classification of the nutritional status of a population is still as varied as there are nutrition workers. Each worker develops his own criteria as to what constitutes malnutrition. The results obtained by any extreme of workers are not comparable, nor can their work be duplicated by others. It is therefore necessary to combine the most practicable of all the procedures and pre-

pare them for utilization in the field.

The need for nutrition study and planned nutrition activity in public health programs has long been recognized. This work has been impeded by lack of trained nutritionists, commissioners of health, and practicing physicians who recognize malnutrition as a disease. Questions are either rarely asked about, or suggestions made, as to adequacy or change in diet or dietary habits, and the nutritional problem remains unrecognized, or unattended to.

The many factors closely associated with malnutrition cannot be readily separated. In most cases there are common ailments, defects, or illness, superimposed upon, or aggravating the malnutrition. In this study we wish to review our findings with methods and plans of attacking this combination of factors which we believe produce malnutrition.

Material and Methods

The persons studied were 2099 white school children of Grady County between the ages of 6 and 19 years. Both sexes were represented about equally and from all sections of the county. The room teachers were requested, through the supervising teacher, to weigh and measure all children attending school. Special blanks were provided by the Health Department with spaces for the children's name, age, and three recordings of weights and heights. On the back of this sheet was space for remarks referable to the individual child's health or school progress.

The scales used in weighing were of the floor spring type, the accuracy being checked with each group weighing. All weights and heights were taken with shoes and outer garments removed. The expected weight was determined by the Baldwin Wood weight, height and age table. A deviation of less than 6 per cent from the expected weight is not included in this study; those children 8 to 10 per cent under-

* Former Commissioner of Health of Thomas and Grady counties, 1946-1947.

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weight were considered in the borderline-malnutrition group and those 10 per cent or more definitely malnourished.

Results and Discussion

TABLE 1
*Number of Children Underweight in
Grady County Schools*

Total number weighed and measured	Number	Per cent	2099
10% or over	607	28.9	
8 to 10%	143	6.8	
Total underweight	750	35.7	

The analysis of age, weight and height of 2099 children screened reveals that 607 or 28.9 per cent are 10 per cent or more underweight. This we feel places them in the category of rather severe malnutrition. A smaller group 143 (6.8 per cent) is in the borderline group.

TABLE 2
*Schools Showing Ascending Percentages of Children
Underweight 10 Per Cent or More*

School	Underweight 10% or more	Underweight 8-10% (Borderline)*
Reno	10.1%	4.0%
Midway	18.0%	8.4%
North Side (Cairo)	18.6%	6.8%
Calvary	20.1%	10.4%
Elpino	21.8%	6.8%
Pawnee	23.6%	7.2%
South Side (Cairo)	25.0%	5.6%
Spence	29.0%	6.4%
Whigham**	31.0%	8.1%
Union	45.0%	7.2%
New Home	62.0%	8.4%

* Considered borderline malnutrition.

** Whigham High School included.

Table 2 presents the schools in ascending percentage of underweight children geographically.

The consideration of underweight children according to location in the county is most difficult. Schools in the southern section of the county show a lower per cent of children underweight. The lesser number in attendance may account for a slight variation. However, the economic level or type of industry in which the wage earner of the family is engaged may also be a factor in the distribution of underweight geographically. The southern section of the county consists chiefly of large plantations with

fewer small, tenant farmers, or sharecroppers than in the north. This economic level may also explain the difference in the two Cairo grade schools.

The addition of dietary and food studies geographically and economically will facilitate specific planning by other organizations such as the farm and home demonstration agents, and the Four "H" Clubs, whose purpose is to improve rural families and their environment. Such studies require more personnel than is available at the present.

Chart 1 shows the distribution of underweight children by ages, and shows that there is a gradual increase in percentage underweight with the increase in age. Three noticeable peaks seem to occur; namely, at 7, 11, and 15 years. No attempt was made to separate these age groups according to sex. The rise at 15 years is very apparent by school inspections, but only one high school (Whigham) participated in the weighing and measuring.

The actual causes for these peaks, in our opinion, are food for thought and discussion. Sudden growth, or developmental changes, have been considered an adequate explanation for the rises in degree of underweight. This may be true in the second and third rises, at 11 and 15 years. The weight, height, and age tables are supposedly so constructed, however, that allowances have been made for these rapid growth periods at all ages. The explanation which appears logical is that the seven-year peak in underweight is due to reduction in family care and attention, plus the addition of school strain, and particularly long bus rides. The second, or eleven year rise, may be a result of many factors: school strain; development of faulty food habits and fads; and excessive amount of family or extra-curricular activities, such as music, dancing, elocution lessons, religious affairs; and



Chart 1. Per cent of children in Grady County 10 per cent or more underweight according to age.

added social life. By history, most of these 11 and 15 year olds have been underweight over a period of years and we feel these peaks are only an accumulation of the factors present earlier, accentuated by the added strain of adult life.

In this group of young adults food fads and fancies make their appearances. The early developing teen-agers fear the criticism by their associates of their added weight. It is at this age that the females are heavier, and frequently, taller than the males. The girls of this group, in many cases, are found to be on self-imposed and self-directed diets; i.e., they eat only one meal and a lunch per day in order to maintain the thin boyish figure of adolescence.

In addition to the personal, or individual, factors there are family or group factors which may be responsible for malnutrition.

In some of our families studied the economic level is not adequate for a well balanced diet for the entire family. There are other problems found even in the best homes, such as poor home management, poor food selection, faulty meal planning, and improper or poor food preparation. Family food idiosyncrasies and faulty food habits frequently are imposed on the children.

One cannot dismiss the question of home factors in malnutrition without considering mental hygiene. The nagging mother or the quarreling father, as well as discord with other members of the family, may promote a feeling of childhood insecurity. This sense of insecurity sometimes is responsible for the child developing physical and mental habits that are contributory causes to malnutrition.

The Academy of Pediatrics is trying to focus particular attention on this so-called "neglected age", 11 to 15 years. It has now been proven that children ages 11 to 15 need as much vitamin A and D as the infant of 10 to 12 months, due to rapid growth and body changes. Few physicians, let alone the lay public, realize this. Part of the neglect is therefore due to ignorance of this and other important aspects of child growth and care.

These 11 to 15 year olders have hitherto been unintentionally ignored by the parents; frequently by the family physician, unless suffering from acute illness or serious accident. The pediatrician all too frequently is considered, either in his own estimation, or that of the general public as a "baby-doctor". We wish to discourage that attitude, particularly among the pediatricians themselves, because of the children's needs for extra attention.

A tabulated list of physical defects are given in Table 3.

TABLE 3

Physical Defects Observed in Underweight Children in Grady County

Number examined	269
Malnutrition	93.4%
Hookworm tests found positive (48 to 90)*	53 %
Infected and enlarged tonsils**	35.4%
Dental decay and faulty mouth hygiene	32.7%
Abnormal skin	8.6%
Folliculosis conjunctiva	4.6%

* Incomplete sampling—enough to be suggestive however.
** Recommended removal.

Physical examinations were done on 269 of the 607 children who were 10 per cent or more underweight. The criteria for diagnosis of malnutrition was based on a number of facts and signs. These were: 10 per cent or more underweight, plus or minus the following; lack of subcutaneous fat, winging of the scapulae, condition of the tongue and mucous membranes (color, texture, etc.), skin texture, posture, cheiloses, and folliculosis of the conjunctiva. The relative frequency given to the signs and

symptoms is indicated in the order presented.

Recommendations for correction of defects, and literature provided by the Georgia State Health Department on diet was sent to the parents. With the data of the physical examination available to the nurses, home visits and parental conferences regarding diets and nutritional needs will be made.

Malnutrition, as determined by* underweight and associated signs, was present in 93.4 per cent of those examined. This percentage is sufficiently high as to make the weighing and measuring procedure a technique of screening children for nutritional studies and medical care.

Hookworm infestation when present may be a contributing factor in the production of anemia and condition of underweight. This hookworm factor operates only in the presence of an inadequate diet or one low in iron and animal protein.

TABLE 4
Severe Underweight School Children Tested for Hookworm

Negative	42
Positive	48
	—
Total	90
Positive untreated	34
Positive treated	14
	—
Total	48

No examination of tonsils was done on normal weight children but it is felt that the high per cent (35.4 per cent) in this group is significant and should be given high preference in medical and surgical care.

Faulty mouth hygiene and dental decay were observed in 32.7 per cent. The criteria for recording dental hygiene were four or more cavities, oral hygiene, or dental defect requiring immediate attention.

Abnormal skin texture and folliculoses of the conjunctiva were encountered less frequently than was expected: 8.6 and 4.6 per cent respectively. Both of these conditions have been attributed to defective diets.

Nutrition Program Plan

The extent and magnitude of the problem of the underweight and malnourished children is stressed throughout this paper. This program cannot be exclusively a Health Department project. It belongs to every thoughtful physician and citizen in Grady County and South Georgia. The physical condition of the children in Thomas and neighboring counties duplicate those of Grady County. This nutrition problem involves all phases of community living, education, health, welfare, recreation and economics. It is as important to provide a living wage as it is to insure religious, educational, public health and other facilities. It must be a joint community program. A program is underway in the Health Department, the educational system, and the farm and home demonstration organizations. In Grady County the entire community must join the above-named groups and work to accomplish the eradication of the serious nutritional problem.

The plans and activities which the various departments are putting into effect are presented in outline form.

Planned Activities of the Various Organizations in the Nutrition Program

Health Department:

1. Examination of the children screened by the school teacher as having physical defects or in need of medical supervision; e.g., underweight, frequent absentism due to illness and other observations.
2. Provide health conferences with parents and teachers and home visits.
3. Provide sanitary inspections of the school environment and home water supplies and sewage disposal.

Educational Department:

1. Provide adequate facilities for school lunch in order to prevent the necessity of rushing the children through the meal in order to accommodate those waiting.
2. Provide (free if necessary) school lunches for those children who are underweight.
3. Incorporate nutrition and health education into every course of study in the school.

Home Demonstration Organization:

1. To emphasize the importance of nutrition and foods in their group meetings and "4 H" clubs.
2. Extend an effort to include mothers of families, having malnourished children, in the demonstration groups.
3. To demonstrate and emphasize low cost, well balanced meals and foods.
4. To emphasize the importance of planned gardens and the home or cooperative canning of foods.

Farm Demonstration Organization:

1. To encourage and advise club members to plant both summer and winter gardens.
2. Promote animal husbandry for home consumption. Production of poultry, pigs, cattle and milk and preservation by locker freezing.
3. Stress the necessity of good feeding in children as well as live stock.

Summary and Conclusions

A weighing and measuring program was instituted in the schools in Grady County. Two thousand ninety-nine children participated. The data collected were analyzed and used as a means of screening the children in need of medical care or supervision. It was found that 28 per cent of the school children were 10 or more per cent underweight. Ninety-three per cent of the children underweight presented signs and symptoms of malnutrition. The incidence of underweight children is greater in the northern half of the county. The distribution of underweight children by age show three peaks of greater incidence at 7, 11, and 15 years. Causes of underweight are discussed from the viewpoint of the individual and the group (family). On physical examination of 269 underweight children a high incidence of enlarged and infected tonsils, 35.4 per cent; and dental defects, 32.7 per cent was noted. These conditions and defects are such as to warrant immediate medical and dental attention because they are contributing causes to malnutrition. A cooperative program was developed and initiated by the education, public health department, and the county demonstration organizations. This program should be enlarged to be a community responsibility.

Note: The authors wish to acknowledge the invaluable assistance rendered by the Grady County Health Department staff, the visiting teachers and the room teachers of Grady County schools.

HEALTHGRAM

The magnitude of the task which still lies ahead should not be underestimated. Tuberculosis even now takes more than 45,000 lives a year in our country, and is a serious cause of disability among men in the productive period of life. The disease still ranks high among the causes of death at most age periods. Louis I. Dublin, Ph.D., *Health Progress 1936 to 1945*, Metropolitan Life Insurance Co.

MALARIA

A Statistical, Clinical and Laboratory Study

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During World War II American soldiers experienced combat action in many tropical and sub-tropical countries from the Solomon Islands in the South Pacific to North Africa, Sicily, and Italy in the Mediterranean. In these areas soldiers came in close association with many tropical diseases. Of these tropical diseases malaria was one of the most prevalent.

The purpose of this paper is to report a statistical study of malaria in overseas patients admitted to Northington General Hospital, Tuscaloosa, Alabama. The report covers a period of eight months from 28 September 1943 to 1 June 1944. During this period 1,571 patients were admitted to the hospital from overseas hospitals; 957 patients from the South Pacific; 512 patients from the Mediterranean and 102 patients from hospitals in England. Since no tropical duty was performed by the patients admitted from hospitals in England they will be excluded from this study. The total number of overseas patients from the South Pacific and Mediterranean theaters was 1,469.

The entire series of cases is composed of malaria relapses or recurrences, all of whom acquired their primary infection and reinfections at overseas stations. Practically every patient gave a history of taking suppressive treatment with either atabrine or quinine. Suppressive treatment was continued until the patients were evacuated from endemic malaria areas and in those returning from the South Pacific to this country treatment was continued until they reached the United States.

The cases may be divided into two gen-

eral groups. Group I is composed of those soldiers evacuated to this country primarily because of repeated malaria infections, thus incapacitating them for further duty in their respective theater. Group II, which can be subdivided into three groups, comprises those soldiers who were admitted to other services of the hospital; namely, Medical, Surgical, and Neuropsychiatric, but had either transfer diagnosis of malaria or came under care for malaria during admission.

All patients having recurrences of malaria were treated on malaria wards except for approximately two months during the winter. Mosquito netting was employed routinely on all cases of active infection from sun-down to sun-up. A special malaria ward adequately screened and sprayed at regular intervals with insecticide was used for several months. Treatment was that recommended by the War Department in Circular Letter 153, 19 August 1943.

No patient was retained in the hospital for special study because of malaria beyond a period of adequate hospitalization. This, of course, varied depending on the cause of admission. In Group I, patients who were markedly underweight and exhibited other phenomena thought to be due to the wear and tear of repeated malaria infections, were retained until their condition was considered satisfactory. The average period of hospitalization in Group I was 58 days and in Group II 57.3 days. These figures include convalescent furloughs which were given to a large majority of the patients and a variable period of time spent in the Reconditioning Section of the hospital.

Of 1,469 patients admitted from overseas hospitals 441 gave a history of previous malaria or came under observation for the same during admission. One hundred and twenty-five patients fall into Group I while the remainder fall into Group II. See Table

I. The percentage of malaria patients admitted constituted 30 per cent of the total admissions of overseas patients from the South Pacific and Mediterranean theaters. (8.5 per cent in Group I and 21.5 per cent in Group II).

TABLE I

Overseas Patients and Malaria

1. Total Number Overseas Patients.....	1,469
2. Total Number Malaria Patients.....	441
3. Percentage of Malaria Patients Admitted	30
(a) Group I	8.5
(b) Group II	21.5

Patients in Group I gave a history of an average of seven attacks of malaria prior to admission to this hospital with an average infection of six months, while those in Group II averaged three attacks of malaria with 6.6 months the length of infection.

Patients admitted from the Southwest Pacific Theater exhibited by far more pronounced evidence of malaria than those from the Mediterranean. Loss of weight, nervousness, anorexia, headache, backache, and malaise were the most common symptoms. Physical examination revealed undernourished soldiers with the skin tinged yellow from previous atabrine administration. In those patients who gave histories of severe malaria (8 to 10 recurrences during an interval of 6 to 10 months) tenderness over the splenic and hepatic areas was present in practically every case. However, only a very small group had palpable spleens. In a very few cases, hepatomegaly was observed. During recurrences 95 per cent of the patients complained of severe pain over the hepatic area. Tenderness over the spleen was also a frequent finding but not as common as hepatic tenderness. Splenic enlargement was demonstrated most commonly during active infection, subsiding within 3 to 5 days after onset of treatment. Persistent splenomegaly was observed in three patients for a period of over thirty days.

Malaria Classification by Theater: The number of patients admitted as well as the

severity of malaria in every respect was much more pronounced in soldiers from the South Pacific Theater. This group constituted 27.2 per cent of all malaria admissions compared to 2.8 per cent in the Mediterranean patients.

TABLE II

Malaria Classification by Theater

A. SOUTH PACIFIC	
1. Patients admitted	957
2. Malaria admissions	390
3. Percentage of malaria admissions	40.76
4. Number patients with active malaria (one or more recurrences)	140
5. Percentage of malaria patients with recurrences	35.9
B. MEDITERRANEAN	
1. Patients admitted	512
2. Malaria admissions	51
3. Percentage of malaria admissions	9.96
4. Number of patients with active malaria (one or more recurrences)	5
5. Percentage of malaria patients with recurrences	9.8

Of 957 patients admitted from the South Pacific, 390 (40.76 per cent) were classified as malaria admissions, while in the Mediterranean series 512 were admitted with 51 (9.96 per cent) malaria patients. See Table II. There were 140 patients from the South Pacific with active malaria (one or more recurrences) with only five active cases in the other group. The South Pacific patients had a recurrence rate of 35.9 per cent compared to 9.8 per cent in the Mediterranean patients.

Practically all of the estivo-autumnal malaria and mixed infections (*Plasmodium vivax* and *Plasmodium falciparum*) occurred in the South Pacific patients. Every case of complicated malaria including two cases of cerebral malaria and two cases of quartan malaria was observed also in this group. The duration of infection and the number of recurrences occurring prior to admission was much more prominent in South Pacific soldiers. Likewise, the clinical symptomatology and physical findings of weight loss, nervousness, etc., were seen more frequently in the South Pacific group.

There were 125 patients admitted with

a primary diagnosis of malaria; 121 from the South Pacific and 4 from the Mediterranean. Eighty patients (65.5 per cent) of the former group had one or more recurrences while two patients (50 per cent) of the latter group had recurrences. See Table III.

TABLE III
Recurrences of Malaria
GROUP I

A. SOUTH PACIFIC		
1. One recurrence		40
2. Two or more recurrences		40
3. No recurrences		41
B. MEDITERRANEAN		
1. One recurrence		1
2. Two recurrences		1
3. No recurrences		2
GROUP II		
A. SOUTH PACIFIC		
1. One recurrence		42
2. Two or more recurrences		18
3. No recurrences		209
B. MEDITERRANEAN		
1. One recurrence		3
2. Two or more recurrences		0
3. No recurrences		44
Total...One or more recurrences		145
Total...No recurrences		296

There were 316 patients in Group II who gave a history of malaria at time of admission or came under observation for malaria while in the hospital. Two hundred and sixty-nine of these patients were from the South Pacific and 47 patients were from the Mediterranean. Sixty patients (26.2 per cent) in the former group had one or more recurrences while three patients (6.8 per cent) in the latter group had recurrences.

In the sub-division of malaria patients in Group II there were 188 admissions to the Neuropsychiatric Service, 73 to the Medical Service and 55 to the Surgical Service. See Table IV.

TABLE IV

Malaria Admissions to Various Services, and Percentage of Recurrences

	N.P.	Med.	Surg.
1. Total number hospital admissions.....	658	283	403
2. Malaria admissions	188	73	55
3. Patients with recurrences of malaria	31	12	20
4. Percentage of malaria admissions.....	28.5	25.8	13.6
5. Percentage of malaria patients with recurrences	16.4	16.4	36.3

The largest number of malaria admissions occurred on the Neuropsychiatry Service; however, the severity of infection as

evidenced by number of recurrences was much higher on the Surgical Service where out of 55 patients admitted 20 had one or more recurrences of malaria. If those patients admitted in Group I are included as part of the Medical Service, which in reality they are a part of, the percentage of malaria admissions reaches 48.5 and the percentage of malaria recurrences is 47.4.

It is the percentage of malaria admissions in Group II that is the most interesting figure for it is from these patients an idea of the overall picture of malaria occurring overseas can be estimated. Excluding all patients in Group I, approximately one out of every four patients (22.6 per cent) admitted to the hospital from tropical and subtropical countries gave a history of malaria.

There were 289 malaria recurrences observed in 145 patients; 86 patients having only one recurrence and 59 having two or more recurrences. The number of recurrences a patient experienced was proportional to the severity of infection present at time of admission and the length of stay in the hospital.

Chart I illustrates the monthly recurrence rate of malaria. The rate is proportional to some degree to the dates of admission of convoys. In the latter part of September 1943, approximately 500 patients were admitted from the South Pacific Theater. This explains the peak of 90 recurrences present in October 1943. Two small convoys from the South Pacific were admitted in November and December 1943 and one large convoy from North Africa (approximately 250 patients) in November 1943 which accounts for the sustained although gradual decrease in the number of recurrences during these months. Two convoys in January and February 1944 (350 from South Pacific and 250 from the Mediterranean) account for the increase

CHART I

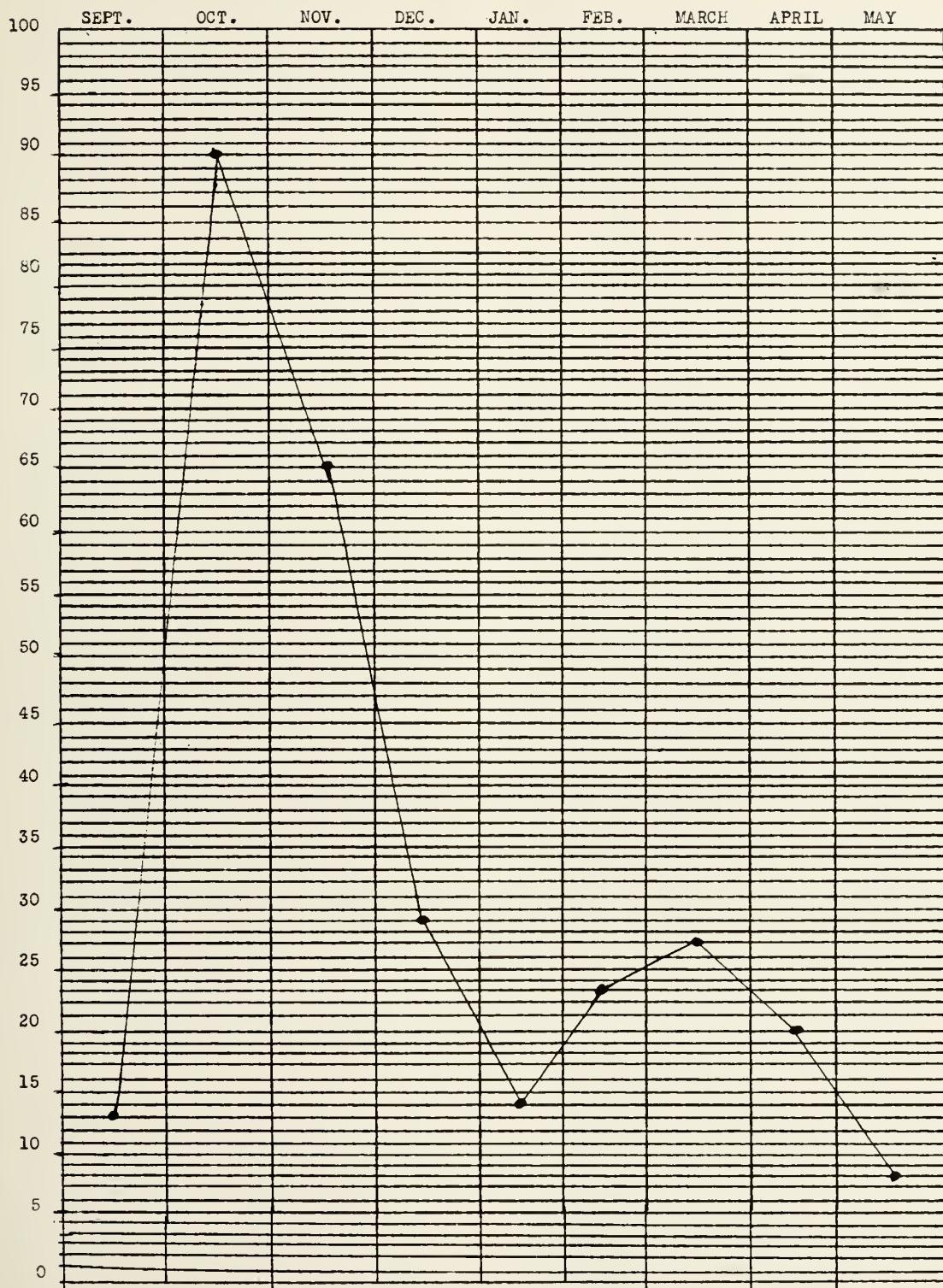


Chart I. Monthly recurrence rate of malaria.

in recurrences in February and March 1944.

Other factors that influenced the number of recurrences were the length of hos-

pital stay and the period of time elapsing between leaving overseas stations and arrival at this hospital. The latter factor is illustrated in Chart I. The large convoy of

patients (South Pacific) admitted in September 1943 was sent to this hospital within three days after arrival in this country while other convoys of South Pacific patients admitted in February and March 1944 had several weeks of hospitalization in hospitals on the west coast before being shipped here.

Still other factors that played a role in producing recurrences were: (1) alcoholism, (2) trauma, (3) surgery, and (4) excessive physical exertion. It was not at all unusual for malaria patients who had several drinks of whiskey or a few bottles of beer to have a chill and fever within a few hours after taking the alcoholic beverage. There were a few instances of recurrences following surgery. Close liaison was established with the Surgical Service and all patients with previous malaria who were to undergo surgery were treated with atabrine for several days before and after surgery. This reduced to nil the recurrences after surgical procedures. There were a few cases of recurrent malaria that were directly related to strenuous exercise in the Reconditioning Section of the hospital.

In the 289 active recurrences the following types of Plasmodia were demonstrated:

Plasmodium vivax	176
Plasmodium falciparum	23
Plasmodium malariae	2
Plasmodium, type not determined	72
Plasmodium vivax and falciparum (mixed)	16

The plasmodia of benign tertian malaria were found most frequently. The incidence of estivo-autumnal malaria, including those cases of mixed infection, is rather high. Thirty-eight of the 39 recurrences where Plasmodium falciparum was found (this includes mixed infections) occurred in South Pacific patients admitted in the first convoy in September 1943. Only one case occurred in patients from the Mediterranean Theater. Two cases of quartan infection also occurred in South Pacific patients admitted in September 1943. In only one patient was Plasmodium falci-

parum demonstrated after two or more recurrences had occurred. This is in accordance with the general belief that Plasmodium falciparum infections are of relatively short duration and tend to die out within six to twelve months. Chart II demonstrates the type of plasmodia that occurred monthly in this series.

In an extremely small group of patients (15) clinical diagnosis was made of recurrence of malaria even though it was not confirmed by laboratory studies. This group has been omitted from this series.

Atypical Malaria

In general, a patient with a recurrence of malaria presented the following symptomatology: 1) A prodromal period of 24 to 48 hours manifested by generalized malaise, headache, backache and sensation of aching over entire body. (2) Increased headache and backache culminating in a chill, high fever and sweat.

The majority of patients who had Plasmodium falciparum demonstrated in the blood followed the pattern described above. There were a few exceptions to this, however, and it is this group that may be classified as atypical malaria. A few patients complained of symptoms of acute coryza, sore throat and cough several days prior to the paroxysm. Irregular fever, and daily elevations of fever to 103.0, or to 105.0F. with no chill present and no significant symptomatology was observed in four patients. Diarrhea (not bloody) occurred in two patients with immediate relief noted after the onset of atabrine therapy.

Irregular symptoms also occurred in benign tertian infections. Those encountered consisted of generalized severe muscle pain especially in the extremities, acute abdominal pain usually more severe in the epigastrium and acute hysterical reactions preceding the chill. There was one patient who was arrested in town for being drunk and disorderly. He was completely disoriented,

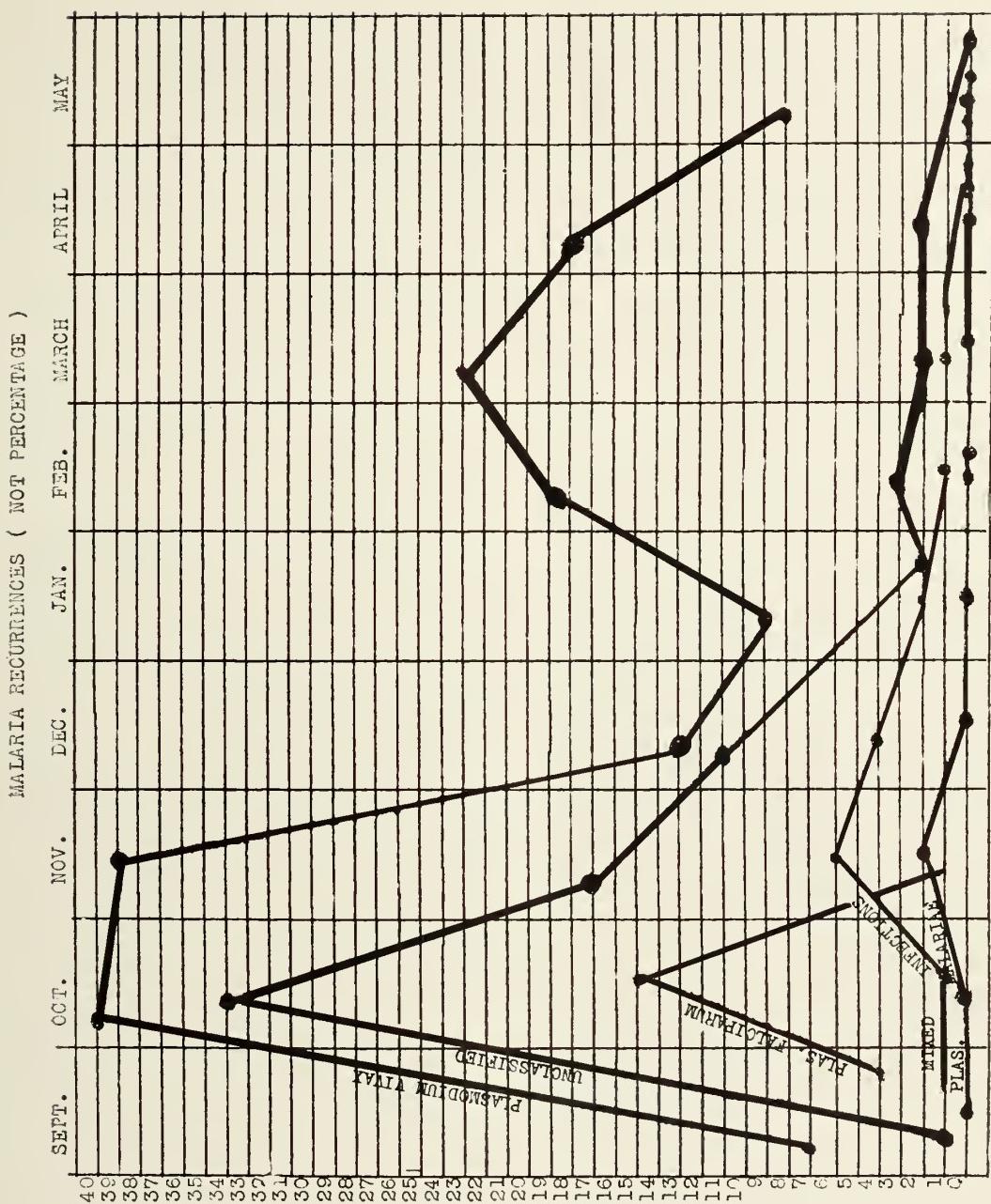


Chart II. Type of plasmodia that occurred monthly in this series.

starry-eyed, and gave the appearance of being quite intoxicated. At that time his temperature was 105.0F., and a blood smear revealed *Plasmodium vivax* malaria. History revealed that he had not taken any form of alcohol. Symptoms referable to the upper respiratory tract similar to those encountered in estivo-autumnal malaria were also noted. It was not at all uncommon to see chronic bronchitis following a malaria chill which persisted for seven to

fourteen days after control of the paroxysm.

An interesting observation was the relationship of malaria to patients admitted to the Neuropsychiatric Service. Patients with a primary diagnosis of anxiety state and who also had a secondary diagnosis of malaria would be improving rapidly under psychotherapy and then be thrown completely back into a severe anxiety state following a malaria paroxysm. The precipitating factor in these individuals was no doubt

the malaria infection.

There were ten patients who had their initial attacks of malaria at this hospital. These patients had suppressive therapy with atabrine overseas for an average of five months. None of them had illnesses which resembled malaria prior to admission. The earliest attack of malaria occurred five weeks after the cessation of atabrine and the longest was six months after atabrine was discontinued. The average period elapsing before active malaria occurred was 6.6 weeks from the date suppressive treatment was discontinued. Plasmodium vivax was found in six patients, Plasmodium falciparum in one and Plasmodium type not determined in three. Sixty per cent of the patients presented atypical signs of malaria when the initial illness occurred. Irregular fever and daily elevation of temperature were the most prominent findings. Splenic tenderness was present in only one patient. The symptoms of headache, backache, malaise and aching were much less pronounced than in other patients. Case I illustrates the problem this type of patient may present.

Case 1. A male, aged 30, overseas theater; North Africa, Sicily, and Italy.

Suppressive therapy with atabrine began in April 1943 in Tunisia. The amount of the drug administered was 0.1 gram ($1\frac{1}{2}$ gr.) daily. Patient continued this regimen until 1 December 1943 when suppressive therapy was discontinued. At that time patient was hospitalized for a fracture of the phalanx of the left great toe.

Malaria had occurred in his outfit prior to this time but he gave no suggestive history.

Patient was evacuated to this country because of the above orthopedic condition. He was admitted to this hospital on 21 February 1944. He remained on the orthopedic service until the 27 March 1944 when he was transferred to the Reconditioning Section.

He participated in the program at the Reconditioning Section with no difficulty until 21 May 1944 when he noticed the onset of mild headache and malaise. On the 23 May 1944 there was a sudden onset of severe headache and mild nausea and vomiting. There was no chill. Physical examination was negative except for temperature of 106.0F.

Laboratory studies revealed a white blood count of 4,000 with a normal differential count. The red blood count and hemoglobin determinations were normal. Urinalysis was negative. Thin and thick smears for malaria were reported negative.

Patient maintained a temperature above 104.0F. for 14 hours. Sponge baths were of no benefit. The following day temperature dropped to 100.0F. and he felt improved until late in the afternoon when headache developed again and temperature started climbing, reaching

104.0F. Thick smears repeated for malaria parasites were negative. Patient was given 1 cc. of adrenalin subcutaneously and in thirty minutes blood was obtained for malaria concentration studies. Several ring forms of Plasmodium vivax were found by this method. Atabrine therapy was instituted immediately and patient made an uneventful recovery.

From observations made it can be concluded that in those soldiers who have had suppressive therapy with atabrine, which was discontinued on removal from malarious regions, and who at some later date experience active malaria are likely to exhibit symptoms and signs of atypical malaria states.

It is entirely possible that atypical malarial states will occur more frequently in all types of malaria where atabrine is employed in suppressive treatment.

Treatment

The regimen used was that recommended by the Surgeon General's Office in War Department Circular Letter Number 153, 19 August 1943.

All patients having recurrences were treated with atabrine hydrochloride preferably, or quinine sulfate. In the two cases of cerebral malaria quinine dihydrochloride was given intravenously.

Atabrine

The following method of administration was employed: Atabrine hydrochloride 0.2 gram (3 gr.) by mouth every six hours for five doses, followed by 0.1 gram ($1\frac{1}{2}$ gr.) three times a day for six days. A total amount of 2.8 grams was administered in seven days. One gram of sodium bicarbonate was given with each dose of atabrine.

Of the 289 recurrences treated, atabrine was employed in 248. From Table V it will be noted that toxic effects from atabrine were minimal occurring in only 2.41 per cent of the cases. Mild nausea and anorexia occurred in a larger group during the first twenty-four hours of treatment but was not severe enough to discontinue treatment and usually disappeared by the second day of therapy. In the three patients who developed urticaria all gave a history of previous atabrine treatment. One patient exhibited a definite mental disturbance after 1.0 gram of atabrine had been given. Hallucinations, delirium and extreme restlessness were present. Atabrine was discontinued and sedation employed. All symptoms of

toxicity disappeared within twenty-four hours. A course of quinine therapy was then given without incident.

Yellow pigmentation of the skin, which occurs with atabrine therapy, should not be considered as a toxic manifestation. The drug is a yellow dye and is deposited in the tissues. Many patients at the time of admission had a slight yellow tinge to the skin from previous administration of the drug. The pigmentation usually disappeared in two to three weeks after the drug was discontinued.

TABLE V
Toxic Effects of Atabrine

1. Severe nausea and vomiting.....	0.81%	2 pts.
2. Urticara	1.20%	3 pts.
3. Mental manifestations	0.40%	1 pt.
Total	2.41%	

Quinine

In the few patients who received quinine sulfate the following dosage was employed: 1.0 gram (15 gr.) by mouth three times a day for two days, then 0.6 gram (10 gr.) three times a day for five days. The amount of the drug given in seven days totaled 16.0 grams.

Therapy with quinine was employed in 39 recurrences. The indications for such therapy were as follows:

(1) Atabrine toxicity	6
(2) Recurrences in patients previously experiencing urticara	2
(3) Change of therapy in patients having several recurrences treated with atabrine.....	31

Chineonism was present to some degree in all patients who received quinine. It was never severe enough to discontinue the drug. The most common symptoms were tinnitus, dizziness and tremor. Symptoms were made pronounced during the first two days of treatment when the dosage was 3.0 grams per day.

Plasmochin

Plasmochin was used in only one case. In this patient gametocytes of *Plasmodium falciparum* persisted after a complete course of atabrine. The dosage employed was 1/6 grain by mouth three times a day after meals for four days. Daily thick

smears revealed a gradual diminution of the gametocytes. They were completely absent at the completion of treatment. No toxic results from the plasmochin were seen.

Quinine Dihydrochloride

The two cases of cerebral malaria were treated with quinine dihydrochloride. Both cases exhibited severe shock, coma, and subnormal temperature. Six tenths of a gram (10 gr.) of quinine dihydrochloride was given in 500 cc. of normal saline intravenously very slowly requiring approximately two hours for administration. In both instances response to the drug was dramatic. The patients were rational within six hours after the onset of treatment and were able to take oral therapy with atabrine thereafter.

Atabrine hydrochloride has proven to be a very satisfactory drug in the treatment of active malaria. Its range of toxicity is much lower than that of quinine. Neither drug has any value above the other as regards preventing recurrences.

Diagnosis by Laboratory

The routine laboratory procedure for the diagnosis of malaria was as follows: Two thin and two thick smears of peripheral blood were obtained from each patient as soon as the clinical diagnosis was made. Thin smears were stained with Wright's stain, and thick smears with Giemsa stain. If parasites were not found on the thin smear a diligent search of the thick smear was made. As often as possible smears were made within one to two hours after the chill. If both smears were negative the Bass-Johns¹ concentration test was employed. See Table VI. Adrenalin (6-8 m.) was given subcutaneously thirty minutes prior to concentration studies.

The principle of the Bass-Johns concentration test is that after centrifuging red blood cells for several times those cells

NO	DATE OF RECURRENCE	PLASMODIA SMEAR	PLASMODIA PER 100 RED BLOOD CELLS CONCENTRATION	RBC	HGB	WBC	TREATMENT	INITIAL ATTACK	NO. OF RECURRENCES
1	10-3-44	Unst.	1/750	4,800,000	13.2	6,450	Atabrine	Mar. 1944	0
2	10-4-44	Plas.V.	1/500	4,990,000	15.5	5,500	Atabrine	Oct. 1943	2
3	25-4-44	Plas.V.	1/800	4,100,000	13.5	9,000	Atabrine	Nov. 1942	10
4	25-4-44	Plas.V.	1/1000	5,500,000	14.9	8,850	Atabrine	Feb. 1943	14
5	27-4-44	Plas.V.	1/750	3,880,000	13.0	8,500	Atabrine	Nov. 1943	6
6	11-5-44	Plas.V.	1/200	4,480,000	14.8	7,150	Atabrine	Sept. 1943	10
7	12-5-44	Plas.V.	1/500	4,980,000	14.8	6,800	Atabrine	Apr. 1942	15
8	17-5-44	Plas. V.	1/1500	4,100,000	14.0	8,750	Atabrine	Oct. 1943	6
9	18-5-44	Plas.V.	1/1000	4,750,000	14.5	5,800	Atabrine	Oct. 1943	4
10	18-5-44	Plas.V.	1/1200	4,750,000	14.0	8,600	Atabrine	Mar. 1943	3
11	18-5-44	Plas. V.	1/1500	5,010,000	14.8	10,150	Atabrine	Dec. 1942	16
12	23-5-44	Plas.V.	1/1000	4,700,000	14.3	5,900	Atabrine	Feb. 1943	14
13	23-5-44	Plas. V.	1/4000	5,000,000	15.0	7,000	Atabrine	May 1944	0
14	29-5-44	Plas.V.	1/11000	4,000,000	14.2	4,600	Atabrine	Feb. 1943	14
15	30-5-44	Plas.V.	1/800	4,800,000	14.5	6,200	Atabrine	Feb. 1943	15
16	7-6-44	Plas.V.	1/800	4,300,000	14.5	6,000	Atabrine	Oct. 1943	5
17	15-6-44	Plas.V.	1/1500	4,630,000	14.6	9,200	Atabrine	Aug. 1943	2
18	2-6-44	Plas. V.	1/1000	5,060,000	14.0	5,200	Atabrine	Feb. 1943	16
19	25-6-44	Plas. V.	1/1500	4,800,000	12.5	5,900	Atabrine	Oct. 1943	5
20	27-6-44	Plas.V.	1/300	4,850,000	14.0	6,400	Atabrine	Jan. 1943	6
21	29-6-44	Unst.	1/1500	5,200,000	16.0	4,800	Atabrine	Sept. 1943	8
22	7-7-44	Plas.V.	1/1000	5,030,000	14.6	7,500	Atabrine	July 1943	2
23	18-7-44	Plas.V.	1/300	4,050,000	13.0	6,250	Atabrine	Oct. 1942	9
24	20-7-44	Unst.	1/100	4,000,000	14.0	11,500	Atabrine	Nov. 1943	2
25	30-7-44	Unst.	1/750	5,000,000	15.0	5,050	Atabrine	Oct. 1943	1

Table VI. Laboratory and clinical data in the diagnosis of malaria.

with malaria parasites are lighter and come to the surface of the centrifuged blood. A smear is then made and stained (Wright's stain) and examined for malaria. From

Table VI one can see that this test was helpful in the early diagnosis of malaria in several cases.

Bone marrow aspirations were done on

eight malaria patients. In five cases of active malaria bone marrow aspiration was done within two hours after the chill. Peripheral blood smears were made at the same time. The peripheral blood smears were positive for *Plasmodium vivax* in all five cases. A diligent search for the reticuloendothelial elements and red blood cells of the bone marrow failed to reveal any parasites of malaria. In three cases of chronic malaria bone marrow studies were also negative.

Malaria in Negro Soldiers

There were 143 Negro patients admitted to the hospital from overseas theaters, 103 from the South Pacific and 40 from the Mediterranean. Since none of this group was admitted primarily for malaria, they fall into Group II. Twenty-six patients (18.18 per cent) gave a history of malaria at their overseas stations.

Whether these Negro soldiers were subjected to the same conditions in overseas theaters as other soldiers is not known and may account for the difference noted. Approximately all gave a history of suppressive therapy with either atabrine or quinine. Their average period of malaria was eight months with three recurrences.

Only two recurrences occurred in Negro patients while under our observation and both were unclassified infections. It is of interest to note the transfer diagnoses of malaria in these patients. They are as follows:

<i>Plasmodium vivax</i>	3
<i>Plasmodium falciparum</i>	9
<i>Plasmodium unclassified</i>	14

The low incidence of transfer diagnoses of *Plasmodium vivax* malaria (11.5 per cent) in the Negro patients compared to a much greater figure (approximately 35.42 per cent—exact percentage not available) in white patients is an interesting observation. If Negro soldiers were subjected to the same conditions as white soldiers then

an immunity against malaria would seem to be present. No conclusions can be drawn from those having active malaria since only two cases were observed.

Hematologic Studies in Malaria Patients

Anemia has been described as a very frequent finding in malaria. It was very interesting to observe that in all the patients followed in this study not a single case of anemia due to malaria was seen.

Admission laboratory studies were available for all patients in Group I and 295 in Group II. An analysis of these revealed an average red cell count of 4,600,000 in both groups.

An accurate analysis of hemoglobin determinations was not available, since several methods were employed.

Additional investigations of patients during active malaria infection were carried out. In 25 consecutive cases of malarial recurrences red blood counts and hemoglobin determinations were accomplished within 48 hours after the paroxysm. See Table VI. In this group the average red blood count was 4,672,000 with hemoglobin (Sahli) readings of 14.3 grams.

From the above evidence it can be concluded that in overseas soldiers returned to this country for hospitalization for malaria, anemia was not present. Also, no evidence of anemia was demonstrated during active malaria infection.

White Blood Count

The white blood count was not influenced to any significant degree in patients with chronic malaria. Laboratory studies on patients in Group I done at the time of admission to the hospital revealed an average white blood count of 8,281 with no significant abnormalities in the differential count.

In 25 patients with active malaria, white blood count and differential studies were

NO.	DATE OF RECURRENCE	PLASMODIA	SEROLOGY (KAHN)	INTERVAL BETWEEN CHILL AND POSITIVE SEROLOGY	DURATION POSITIVE SEROLOGY	TREATMENT
			POSITIVE NEGATIVE			
1	10-3-44	Uncl.	✓	6 Days	29 Days	Atabrine●
2	10-4-44	Plas. V.	✓	7 Days	26 Days	Atabrine●
3	25-4-44	Plas. V.	✓			Atabrine●
4	25-4-44	Plas. V.	✓			Atabrine●
5	.27-4-44	Plas. V.	✓			Atabrine●
6	11-5-44	Plas. V.	✓			Atabrine●
7	12-5-44	Plas. V.	✓	5 Days	10 Days	Atabrine●
8	17-5-44	Plas. V.	✓			Atabrine●
9	18-5-44	Plas. V.	✓	6 Days	15 Days	Atabrine●
10	18-5-44	Plas. V.	✓			Atabrine●
11	18-5-44	Plas. V.	✓			Atabrine●
12	23-5-44*	Plas. V.	✓			Atabrine●
13	23-5-44	Plas. V.	✓	6 Days	28 Days	Atabrine●
14	29-5-44	Plas. V.	✓	1 Day	10 Days	Atabrine●
15	30-5-44	Plas. V.	✓			Atabrine●
16	7-6-44	Plas. V.	✓	1 Day	11 Days	Atabrine●
17	15-6-44	Plas. V.	✓			Atabrine●
18	20-6-44	Plas. V.	✓			Atabrine●
19	25-6-44	Plas. V.	✓			Atabrine●
20	27-6-44	Plas. V.	✓			Atabrine●
21	29-6-44	Uncl.	✓			Atabrine●
22	7-7-44	Plas. V.	✓	6 Days	11 Days	Atabrine●
23	13-7-44	Plas. V.	✓			Atabrine●
24	20-7-44	Plas. V.	✓			Atabrine●
25	30-7-44	Uncl.	✓			Atabrine●

Table VII. Serologic (Kahn test) and other data in this series of malaria patients.

made within six hours after the paroxysm. See Table VI. In this series the average white blood count was 7,062. The differential counts were within the normal range. These figures are in accord with the general belief that the white blood count is normal in active malaria infection.

Serologic Manifestations in Malaria Patients

Routine serologic studies on malaria patients at the time of admission revealed approximately 9 per cent positive reactions (Kahn). Histories obtained from these patients at that time revealed that all had

TABLE VII

a recurrence of malaria within four weeks of the date that the blood was studied. The reaction became negative within seven to ten days in practically all cases.

In an attempt to evaluate the percentage of positive serologic reactions occurring in malaria, the initial appearance and duration of the positive serology, 25 consecutive cases of active malaria were studied. Only the Kahn reaction was employed. The initial Kahn was done within 48 hours after the malaria paroxysm and repeat serologic studies were done every five days. All patients received atabrine therapy (2.8 gram in 7 days).

The results of this study are shown in Table VII. Thirty-two per cent of the patients developed positive Kahn reactions. Twenty-five per cent of the patients developing positive serology had positive reactions on the initial Kahn. The remainder appeared positive on the second Kahn. The average period of time for the appearance of the positive serology was 4.75 days. The total period of positive serology ranged from ten days to 29 days with an average of 17.5 days.

In the majority of cases serologic titers were low. There were only two patients who had qualitative reading of four plus Kahn and in both of these the quantitative Kahn was not above 70 Kahn units.

There seems to be a relation between the malaria paroxysm and the development of the positive serologic finding. In patients who are allowed to have repeated paroxysms the positive serologic test would be expected to be of longer duration than those who received antimalaria drugs.

Conclusions

A statistical study of a large group of overseas patients admitted to an Army General Hospital during an eight month period of 1943-1944 has been presented. Observation of recurrent malaria reveals

that this disease has many unusual clinical findings and may simulate many other conditions.

Malaria contracted in the Pacific Theater was much more severe in every respect than that occurring in the Mediterranean Theater. The density of infected mosquitoes along with other factors that favor a large mosquito population no doubt played a prominent part in the severity of the malaria in the patients from the Pacific area.

From the observations of this large group of patients one can postulate that recurrences of malaria are dependent on several factors; namely, atabrine suppressive treatment, degree of infection present, period of time between initial infection and hospitalization in the United States, and to some extent other factors such as alcoholism, surgery, and excessive physical exertion.

Atabrine hydrochloride and quinine sulfate are important drugs in the management of the acute malaria paroxysm. Neither of these drugs cures malaria. The toxicity from atabrine was extremely low (2.41 per cent) and was the drug of choice for treatment. The response of the two cases of cerebral malaria to intravenous quinine dihydrochloride was very dramatic. Plasmochin was only employed in one case where gametocytes were persistently present.

The initial attack of malaria may appear from one to six months after atabrine suppressive treatment has been discontinued. The clinical picture in such cases may be very atypical.

The Bass-Johns concentration test was found to be very helpful in the early diagnosis of malaria. Bone marrow aspiration either during the acute paroxysm or in chronic malaria is of no aid in the diagnosis. The white blood count remains nor-

mal during all phases of malaria.

Anemia was not a prominent feature in this group of patients. No evidence of jaundice directly due to malaria was observed.

Negro soldiers did not exhibit the malaria infection as observed in white soldiers. Not a single Negro patient was admitted to the hospital with a primary diagnosis of malaria.

Malaria is a frequent cause of false positive serologic test (Kahn). This occurred in 32 per cent of a controlled group of cases. Positive Kahn may persist from ten to thirty days. The quantitative Kahn reaction was never found to be very high.

REFERENCE

1. Todd, James Campbell, and Sanford, Arthur Hawley: Clinical Diagnosis By Laboratory Methods, ed. 10, chap. 8, p. 542, Philadelphia, W. B. Saunders Company.

A. M. A. BUREAU SURVEYS SCHOOL HEALTH SERVICES

To obtain information needed to determine present strengths and weaknesses in school health services, to indicate needs, and to point up action for the future, the American Medical Association's Bureau of Health Education is making a survey of school health services.

The survey is a joint project with the U. S. Office of Education. The bureau will query the secretary of each local medical society on school health services in his community, and the Office of Education will query the schools concurrently. The questionnaires have been designed to supplement and reinforce each other, and do not contain duplicate questions.

Participation of the Bureau of Health Education in this school health survey project is in accordance with the A. M. A.'s 12-point program for the advancement of medicine and public health. Point six of the program approves incorporation of child hygiene services in health centers and in local public health units.

DYES USED TO MARK DIAPERS ARE DANGEROUS TO BABIES

Use of aniline dyes, those derived from coal tar, to mark diapers may cause serious poisoning in babies, points out an editorial in the June 25 issue of *Journal of the American Medical Association*.

Seventy-two cases of poisoning in babies from the dyes have been reported, including five deaths, the editorial says, adding:

"Prevention of such accidents is simple. If the diapers are boiled after they are stamped and thoroughly dried before use, the dye becomes fixed and absorption does not occur. The

ideal method of prevention would be the use of nontoxic dyes, but, unfortunately, vegetable pigments, charcoal, and silver nitrate lack the permanence required for marking clothing in large institutions."

UNIFICATION OF MILITARY MEDICAL SERVICES IN THE SOUTHEAST

A definite step toward unification of medical services and facilities of the Armed Forces in the Southeastern States was taken at a conference held at Fort McPherson, April 27, between Colonel Rollins L. Bauchspies, Third Army Surgeon, Captain J. W. Allen of Charleston, S. C., Sixth Naval District Surgeon, and Colonel Clifford P. Michael, of Orlando, Air Surgeon, Fourteenth Air Force.

Colonel Michael and Captain Allen visited Fort McPherson for the discussion at the invitation of Lieut. General Alvan C. Gillem, Jr., Commanding General, Third Army.

The three medical officials discussed administrative problems concerning the unification program, and worked out many of the details which will be put into practice when unification is completed.

As a result of this conference it will be possible for any member of the Armed Forces to obtain medical treatment in any Army, Air Force or Navy Hospital or dispensary in the Southeastern Area.

At the same time, they pointed out, the agreements reached will provide a more efficient medical coverage throughout the area, as each member of the Armed Forces will provide medical service for the other two branches in such localities where one such service has the facilities.

Following the conference, it was announced this arrangement will also make the most economical use of medical personnel to alleviate the critical shortage of physicians, dentists and nurses, and implement the findings and recommendations of the Hawley Committee, by selecting one medical facility in each strategic locality to service that particular area and if the other services are operating medical facilities in that area, they will be discontinued.

"It will not be unusual to see U. S. Navy doctors making ward rounds in Army hospital, or soldiers obtaining treatment in a U. S. Navy Dispensary," a spokesman for the Surgeons said.

"This agreement will undoubtedly be a big savings from a dollars-and-cents point of view, and it will be a tremendous savings in our short supply of doctors, dentists and nurses, for in reality we are going to pool this highly trained personnel," the spokesman concluded.

The group pointed out that since the war there has been a complete unification between the Army, the Air Force and Navy in the matter of standardizing and procuring all medical supplies and equipment. All three services use the same supply catalogue, so that doctors and nurses from one service going on duty in a hospital operated by another service will be completely familiar with the equipment they must use.

In the seven Southeastern States comprising the Third Army Area, North and South Carolina, Tennessee, Georgia, Alabama, Mississippi and Florida, there are now six Army hospitals, seven Navy and 13 Air Force hospitals.

The bulk of the Army's activities are in an area running from Columbus, Ga., north eastward to Fayetteville, N. C., while the Navy and the Air Force have hospital facilities well scattered throughout the area.

It is contemplated, the three surgeons said, that liaison teams will be assigned to each hospital, a Navy team to an Army hospital, and an Army team to a Navy hospital to facilitate processing and reassigning of their own personnel, but final plans on this are to be worked out at a future conference.

PRESIDENT'S PAGE

PUBLIC RELATIONS

As directed by the House of Delegates at the Savannah meeting, your officers met in Atlanta June 22 and decided on a plan to carry out the public relations program.

Four members of Council had visited the medical associations of our adjoining states, and had investigated their methods of carrying out this work. All four of these states employ an individual public relations man. These men all informed our representatives that it would be unwise to employ a public relations group, therefore our representatives recommended that our program be instituted by employing a full-time man to direct and carry on this work under the supervision of the Public Relations Committee.

A proposal by me to employ the services of an organized public relations group for one year, so that immediate action could be taken, was not considered.

A meeting of the committee has been called for July 21, and in the meantime the members of the committee will attempt to find a suitable man or woman to fill this position.

As I feel that the need of this work is very urgent, I will make every effort to expedite the selection and employment of a satisfactory person. In the meantime Dr. Allen and his committee will continue to attempt to have the material sent out by

the American Medical Association distributed through the county secretaries to you for further distribution to your patients and to other groups. All druggists who have been approached have been very cooperative in giving these pamphlets to their customers. As the total adult population of the United States averages one visit to a drug store every five days, you can see that this is an excellent outlet for our material.

The meeting of state officers in Atlantic City the Sunday before the A.M.A. meeting brought out many valuable points to be considered, and suggested many means of combating the efforts on the part of enemies of free enterprise to enslave the medical profession. The entire program of this group, also a large part of the program of the A.M.A., was devoted to the necessity of both the medical profession and the general public having more complete information concerning the present socialistic trends.

The need is not only for defensive public relations activities, but also for activities in this field to show the public what the doctors as individuals and as a group have accomplished and are accomplishing for the health of the nation.

I urge all of you to join in this work and give it your fullest cooperation.

ENOCH CALLAWAY, M. D.

THE JOURNAL

OF THE

MEDICAL ASSOCIATION OF GEORGIA

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FIREARMS A HAZARD INDOORS AND OUT

Firearm accidents claim about 2,500 lives a year in the general population of the United States. A considerable number of these fatalities arise out of mishaps in hunting and other outdoor sports popular at this time of the year, but an even larger number take place in and about the home throughout the year.

A study of the death claim records of 250 Metropolitan Industrial policyholders (215 males and 35 females) who died from the firearm accidents in 1946 and 1947, shows that virtually half of all the victims were killed in the home, a toll twice as large as that sustained in hunting. About two fifths of the fatally injured in the home were children under 15 years, the large majority of them aged 10 to 14 years. The study underscores the need to keep firearms out of the reach of children, for youngsters playing with guns were responsible for more than half the child deaths. In one instance a boy of 13, playing with a revolver he had found in the home, fatally wounded his nephew nine months old. In another case a youngster of four found a pistol hidden in the chiffonier and accidentally shot his neighbor, a boy of seven.

The mere handling, exhibiting, or examining of guns by adults or children in the home caused 32 deaths; cleaning guns was responsible for an additional 19 deaths. The wholly reprehensible practice of playfully pointing "unloaded" guns took a number of lives, while scuffling for guns added to the toll. Several persons were killed when they brushed against or moved loaded weapons which had been carelessly stored behind doors of clothes closets, behind beds, or elsewhere in the house.

Hunting accounted for 64 of the deaths in this essentially urban insurance experience, or for one quarter of the total. Of this number, somewhat less than one third accidentally shot themselves, while more than two thirds were fatally wounded by others. Hunters, it appears, have more to fear from the guns of their associates than from the weapons used by other hunting parties; at least 32 of the 44 persons shot by others were hit by members of their own group. Some hunters were killed when they were mistaken for deer or small game, or when they crossed into the line of fire. Others were killed when the guns of their companions were accidentally discharged while being loaded or when they were caught in the underbrush. In other instances, defective guns were responsible. Of the 20 persons who lost their lives through

self-inflicted wounds, at least five had handled their gun carelessly while climbing over or through a fence. The remaining fatalities were mainly the result of guns being carried in a dangerous position, unsteady footing of the hunter, or the use of a loaded gun to club an animal.

Firearm accidents in public places, exclusive of those occurring in hunting, took 60 lives. Shooting at bottles, cans, and other targets outdoors figured in 18 of the deaths under survey. Many of the fatalities were the result of persons passing between the marksman and the target. Firearm accidents in bars, cafes, stores, and other public buildings accounted for an additional 18 deaths in this experience. Most of these fatal injuries occurred when guns were being "shown off" or merely carried about. The remaining deaths in public places resulted from a variety of circumstances, and included a number of deaths among children playing with guns.

Incredible as it may seem, five lives were lost on as many separate occasions, by foolhardy individuals playing or demonstrating a game called "Russian roulette," in which the cylinder of a gun containing but one cartridge is spun around and the participant points the gun at his head and pulls the trigger on the chance that it is opposite an empty chamber.

In this experience, rifles were the lethal weapon in more than two fifths of the cases where the type of gun was specified; somewhat more than one fifth of the deaths were caused by shotguns, and the remainder by pistol shots. In the home, pistols were the most frequent type of gun used. There were 11 deaths reported to be caused by guns of foreign manufacture, several of them apparently war souvenirs.

It is clear that firearms are a serious hazard both indoors and out. It is equally obvious from the facts here presented that the annual death toll from firearm accidents can be greatly reduced. There are many do's and don'ts the possessor of a gun should know in the interest of his own safety and the safety of his fellows. Even the most elementary of these, as this study shows, are too frequently ignored. If guns are to be kept for protection or recreation, they should be locked up when they are not in use, and this is doubly important where children are about. Both adults and children should be warned that firearms must never be pointed playfully. Every gun should be treated as loaded until inspection definitely shows that it is empty. "Horseplay" can, and very often does, end in tragedy. All guns should be kept unloaded until they actually are to be used.—*Statistical Bulletin*, Metropolitan Life Insurance Company, October 1948.

LOCAL HEALTH DEPARTMENTS

In 1920, there were two counties with public health departments. They employed five people

who served 17,545 persons at a cost of twenty-six cents per capita, all paid by counties.

In 1920, eighteen counties had health departments employing forty-two people at a cost of seventeen cents per capita, sixteen cents of which was paid locally.

In 1948, eighty-seven counties had organized health departments or had provided for them. The total population of these counties was 2,341,561, served by 805 full-time and 72 part-time employees. The cost was \$1.18 per capita of which eighty-three cents was paid locally.

In addition to these counties, 52 others had public health nursing service or had requested such services. One hundred thirty-nine counties, comprising 94 per cent of the population of Georgia, had made appropriations for local health work. Because of inability to secure public health personnel only 87 per cent actually had public health work. Every county in the State would have local public health services if personnel could be secured.

Comparison of the activities of all local public health departments for 1948 with the same services for 1947 shows a marked increase in services rendered in the past year in almost every phase of public health.

Last year, 6,500 more children were immunized against diphtheria; 9,000 more were immunized against whooping cough; 16,000 more people were admitted to the tuberculosis service; 2,500 more expectant mothers and 12,400 more infants and preschool children received services.

These comparisons illustrate that progress is being made in protecting the health of Georgians.—*Georgia Health.*

NEW DRUG AIDS TREATMENT OF MENTALLY ILL PATIENTS

A new synthetic drug known both as myanesin and as tolserol is helping mentally ill patients relax and sleep normally.

Myanesin promises to be a valuable aid to other methods of treatment of some mentally ill patients and is useful in preventing breathing disturbances from electric shock treatment, according to a report on the use of the drug on patients at the Manteno State Hospital, Manteno, Ill.

Writing in the current (June 25) *Journal of the American Medical Association*, Louis S. Schlan, M.D., of the hospital, and Klaus R. Unna, M.D., of the Department of Pharmacology, University of Illinois College of Medicine, Chicago, says that beneficial results were obtained from myanesin treatment of patients suffering from anxiety.

Of the group of 63 patients who received the drug, all had been under observation for a long time and many had been treated with electric shock, insulin shock, and carbon dioxide.

Myanesin was given four times daily in tablet and liquid form. Paraldehyde and other drugs used to calm disturbed patients act by putting them to sleep, but myanesin relieves tension without causing drowsiness, the doctors point out.

In two patients, myanesin alleviated anxiety in one hour after it was administered. These patients said that they were able to "think things through" during the time of action of the drug, and both were able to fall asleep normally at bedtime.

In another patient, who had been hospitalized 20 years, myanesin produced alleviation of symptoms of psychoneurosis (less severe mental illness) for 12 days, comparable to results from four electric shock treatments.

Two hypomanic patients, suffering from mental disorder characterized by elation, hyperirritability, and overtalkativeness, became more calm promptly after administration of the drug, and another extremely overactive patient who had been refractory to all other medication became consistently quiet with myanesin treatment.

In 17 patients with schizophrenia, the severe mental illness popularly referred to as "split personality," the drug had some sedative action in quiet surroundings but no remarkable effects.

In 10 of 30 patients with diverse conditions, breathing disturbance from electric shock treatment, which has been blamed for damage to the brain, was eliminated.

Myanesin alleviated symptoms of eight patients with acute alcoholism and of two patients addicted to morphine and heroin. Myanesin did not affect the craving for the drugs, however.

No serious toxic effects from myanesin were observed by the doctors.

HYPNOTISM FOR ENTERTAINMENT IS DANGEROUS PERFORMANCE

Hypnotism is not an innocuous performance to be used for entertainment, warns a medical consultant of *The Journal of the American Medical Association*.

"Hypnosis should not be allowed outside of the medical profession, and laws are needed, forbidding the use of hypnosis for entertainment purposes," he advises in the current (June 25) issue.

"A public performance has the probability of doing great damage. Neurotic symptoms can be created readily by direct suggestion in the average adult. But since children are more suggestible than adults, the potential harm is even greater.

"In competent hands hypnosis has no harmful effects, but where it is utilized for nonsensical and dramatic effects, and where removal of symptoms is attempted without some understanding of the dynamics of the subject's personality, hypnotized persons may be adversely influenced.

"Since many youngsters have a sense of insecurity and are therefore potentially neurotic, they have more serious problems in interpersonal relationships. When they are exposed to an injudiciously applied hypnotic trance, they may become acutely upset."

NOISE IS THREAT TO HEALTH, DOCTOR SAYS

Noise is regarded by psychiatrists and psychologists as one of the most serious threats to health, says W. E. Grove, M.D., Milwaukee, in the current (June 25) *Journal of the American Medical Association*.

Long continued loud noise impairs nervous and mental health to a degree "not incomparable to battle fatigue," damages hearing function, and reduces efficiency of workers, he points out.

"The nervous system is not constituted to take this sort of battering," Dr. Grove says. "One becomes jumpy, jittery, and irritable under the impact of continuous noise. Exposure to extremely loud sounds over a long period results in impaired hearing. The louder the sound, the greater the impairment over a similar period."

Some researchers have found that the dividing line between innocuous and hazardous noise lies somewhere between 70 and 100 decibels, Dr. Grove says. (A decibel is a unit for measuring the loudness of sounds.)

For its effect on hearing function, doctors can safely disregard noise of less than a 90 decibel level, he believes. Study has shown that the noise level of an ordinary office is about 40 decibels, that of a busy street about 65 decibels, and that of heavy traffic about 80 decibels.

AMERICAN MEDICAL ASSOCIATION ENDORSES 'CARE' BOOK PROGRAM

The Board of Trustees of the American Medical Association at the annual session in Atlantic City voted to endorse the CARE program to send medical books overseas to war-ruined libraries.

The board also authorized the appointment of a committee of three physicians to study the program and to arrange for the cooperation of the A. M. A. in obtaining books and microfilms on medical subjects and funds for the purchase of such material.

Milton L. Smith, New York, educational director of CARE, explained that medical books to bring European doctors and students up-to-date on scientific and technical developments will be among the volumes sent to help replenish national and university libraries abroad.

Mr. Smith said that Europe had been virtually "blacked out" for many years on medical advances in this country. He pointed to penicillin as an example.

"Penicillin is an American product," he said. "We have sent a great deal of it to Europe. But its uses are not understood, and cannot be, until we supply the books that explain our researches."

CARE, through funds contributed for this purpose, will purchase books in this country according to requests already received from universities and libraries and will send them abroad. Contributors of more than \$10 will be

permitted to express a preference for the countries and institutions they wish to help.

Contributions to the book program may be sent to CARE offices in principal cities or to the CARE headquarters, 20 Broad Street, New York.

TAKE IT EASY TO STAY WELL IN SUMMER HEAT

Take it easy to avoid heat stroke, heat exhaustion, and heat cramps as summer temperatures climb, says James A. Brussel, M.D., Willard State Hospital, Seneca County, N. Y. in the current (July) issue of *Hygeia*, health magazine of the American Medical Association.

Avoid prolonged exposure to heat, indoors or out, particularly on humid days, watch the youngsters who are playing under the merciless rays of the sun, and keep the old folks at rest and in the shade, he advises.

Eating less so that the circulatory system is not taxed, drinking plenty of fluids, and taking salt tablets at meals help, too, according to Dr. Brussel.

"Above all, know your signs and symptoms of heat stroke, heat exhaustion, and heat cramps so that you can promptly render the proper first aid while waiting for the physician," he says.

Headache is a warning symptom of all three conditions, according to Dr. Brussel. Nausea, lassitude, and cessation of sweating are early symptoms of heat stroke; dizziness, sense of exhaustion, and nausea are warnings of heat exhaustion; and excessive sweating and dizziness during or following heavy work are warnings of heat cramps.

In heat stroke, most serious of the three conditions, the temperature is very high—107 or over—the skin is hot and dry, the face is flushed, and the patient is unconscious. In heat exhaustion, the temperature may be subnormal or only slightly elevated, and the skin is moist, sometimes cool and clammy. Heat cramps are severe, painful spasms of the muscles.

First aid for heat stroke is immediate cold water baths or sprays and cold compresses. Bed rest is indicated for the other conditions. Water and salt or salt tablets are given for heat cramps.

THE ETIOLOGY AND NATURE OF CANCER

Prior to World War II I had the pleasure of spending part of one summer at the University of Chicago, in the Department of Pathology, under the direction of Professor H. Gideon Wells, one of America's foremost physicians and researchers. From him I learned much. Cancer was one of his great interests. His broad knowledge of the subject was astounding, yet he seemed to be impressed with the fact that, while much had been done and volumes had been written, we knew very little about malignancy. I have recently reviewed some of the thoughts he had and had written about, and I am impressed very much with his opinions at that time, and how much they apply to cancer problems fifteen years later.

The above statement now leads me to ask the question: What do we actually know about the etiology and nature of cancer?

First, I think we can safely agree that cancer cells are immortal. This is especially so if they could be freed from life's limitations. Cancer cells have been growing after transplantation for more than 30 to 50 years.

Second, cancer cells in animals are practically identical with those in the human being, and the establishment of cancer, either in man or animal, depends largely on three factors: (1) inherited characteristics, (2) age of the victim and (3) chronic irritation. Of those factors there is considerable evidence to indicate that age and irritation are far more important than inherited stigmas. However, we must not forget that some cancers seem more likely to occur in the same families than do others. Cancer in the stomach is one of that category. Napoleon I, his father, his brother and two of his sisters (Pauline and Caroline) died from stomach cancer. Another tumor, retinal glioma, has also a striking familial occurrence. We must not be too discouraged, however, by familial cancer, because there is also evidence to suggest that there are persons and families who are cancer resistant. Warthin and Pearson cited a family with 9,000 descendants in whom cancer seldom had occurred. One final word about irritation. This is, as I have inferred above, most important, yet it certainly is not the final answer. I must refer to four brothers with lip cancer. Three smoked habitually. All developed cancer about the same age and same site. One of them, however, did not smoke, yet he too developed similar lip malignancy! So finally, when we analyze this paragraph, we can say: "Well, we are right back where he started."

Third, I think there is ample evidence to say conclusively that cancer is a *universal* disease in multicellular organisms. It is remarkable when we recall that cancer has been found in the ovary of a python and the urinary bladder of an ox; sarcoma in hearts of guinea pigs and in the liver of a crocodile; adenoma of hypophysis of a baboon, an Indian buffalo, a parakeet and the testicle of a golden eagle. Carcinomas have been noted in the uterus of a rhinoceros, fibromyoma in an armadillo, chondroma in a lizard, glioma of the eye of a sea gull, leiomyoma in the uterus of an elephant, chorionepithelioma of a porcupine's uterus, carcinoma of the testicle in a salamander, thyroid cancer in a sea bass, and melanoma in fruit flies. I also published a report several years ago of primary carcinoma in a rooster occurring in the liver. It is also interesting to know that cancer in other than the human varies quite a bit. For instance, cancer of the stomach in man takes first place in frequency, but in other animals it is rare. For example, there are only a few reported cases of stomach cancer in dogs. Cancer of the cervix is also uncommon in animals. Among mammals, mammary cancer is one of the most frequent, but of all, the one, the most overworked, the most traumatized—the cow, seems freest of breast cancer than do others. With the exception of some few case reports made by Dibble in Australia, cancer in the breasts of cows has never been found. No one can answer that enigma satisfactorily. Wells of Chicago says that "pronounced variations in susceptibility to cancer of different tissues in different species seem most readily explained as a difference in the inherited properties of the tissues."

Fourth, we can say that cancer is not necessarily a disease of civilization, but occurs among races any place on earth. Contrarily, some observers have stated that cancer is rarely encountered in primitive people or in backward countries. This statement is partly true and partly false. Age plays a part here. Natives in India live about 26 to 36 years. They do not live long enough to develop cancer. Evidence of cancer in the American Indian was thought to be rare, but in the

early years of the country most Indians died early from other diseases, such as malaria or "lead poisoning". The facts stand, however, that cancer has been noted in all races everywhere: India, Australian Aborigines, Japanese, Chinese, Russians, Eskimos, Africans, and probably Shangalarians (B. Shangala). I know of cancer in many different Pacific Island tribes whom I encountered during World War II. However, I did not note as many skin cancers as I expected to observe. We will also find, I am sure, that as clinics and medical efforts increase among backward countries that the cancer rate will increase, because better efforts will be made to find them.

Furthermore, I think we can say with some degree of reason that there is accumulating evidence that viruses can certainly cause malignancy. At least we can call it a virus, largely because malignancies of certain types have been produced by the introduction of filterpassing agents into animal tissues; likewise malignant cells will reproduce themselves when transplanted, especially so into an animal's eye. We are also aware of the fact that chemical agents of various types, especially those which can be inhaled through the pulmonary system, appear to be carcinogenic in some instances.

Finally, although we have barely touched the surface about the nature and etiology of cancer, we can come to fairly concrete conclusions, although we may later find ourselves wrong again, that: *Malignant cells are immortal*; that *cancer as a disease is universal*. Unquestionably, we have strong evidence of *inherited disposition* to malignancy, and this is certainly true in animal experiments; likewise, we may have *cancer resistant people*. Factual evidence is strong about age and chronic irritation, and they stand out as unquestioned forces in etiology. We need to know much more as to what promotes cancer potential in cells. Somehow we must not forget, however, that all these facts do not by any means tell the whole story. For instance: Why is it that cows do not have mammary cancer? And why is cancer so rare in the duodenum? I have never seen either one.

JACK C. NORRIS, M.D.

VETERANS ADMINISTRATION HOSPITAL FOR ATLANTA

Final action to acquire a site for a 500-bed general medical and surgical hospital in Atlanta, has been initiated by Carl R. Gray, Jr., Administrator of Veterans Affairs, V-A announced June 30.

The new hospital will be constructed on the Asa G. Candler, Jr., estate, which has been offered to V-A for \$250,000, the approximate value of the land alone. The tract is approximately 42 acres and fronts on Briarcliff Road. It lies within the southwest quadrant of the intersection of Briarcliff Road and University Drive South. The tract is approximately 850 feet wide and 2,000 feet deep.

The site is about one and one-half miles west of Emory University Hospital and about four miles northeast of the center of the city. It is readily accessible by public transportation and all utilities are available.

More than 30 sites were inspected prior to selection of the Candler estate. The Candler site was recommended by Dr. Paul B. Magnuson, Chief Medical Director of V-A, and F. H. Dryden, Assistant Administrator for Construction. Mr. Gray personally inspected the site prior to approval.

The Dean's Committee of Emory University Medical School will cooperate with V-A in staffing the hospital, assuring the highest type of medical care for sick and disabled veterans.

Construction will be started as soon as possible. Cost is estimated between eight and nine million dollars.

GEORGIA DEPARTMENT OF PUBLIC HEALTH

CASE INVESTIGATIONS AND CONTROL OF MURINE TYPHUS FEVER IN GEORGIA

Due to the high incidence of murine typhus fever in many South Georgia counties, it was necessary at the beginning of the DDT dusting program¹ in 1945 to apply control measures on a county-wide basis in order to bring the disease under immediate control. Since 1945, murine typhus fever decreased from 1,111 cases in that year to 441 in 1947 and 225 cases in 1948. The reduction for the three-year period from 1945 through 1948 was 80 per cent.

This significant decrease has justified reducing control programs during the latter part of 1948 and 1949 from county-wide operations to treating only those premises or areas that have been found through case investigations to be associated with reported typhus fever cases. This approach to the control and prevention of the disease is effective and less expensive than county-wide control operations. To obtain the most effective control and prevention of the disease with this plan of approach to the problem, it is essential that reported cases in a county be investigated as early as possible and rodent control measures applied to the premises indicated.

Information obtained from these investigations consists primarily of facts relative to environmental conditions conducive to rodent infestation. Since the information obtained is non-medical in character, these investigations are conducted by non-medical personnel of the Typhus Control Service under the general supervision of the regional medical directors and local county health officers.

These investigations, which were begun by the Typhus Control Service during the early part of 1948, have been conducted principally in the southern half of the State. Murine typhus fever cases reported to the State Department of Health are referred to the regional medical directors in whose regions the reported cases occur. Cases are then referred to the regional typhus control supervisors for investigation.

The initial step of the investigation is made by contacting the local physician who reports the case. The investigator explains to the physician the purpose of the investigation, type of environmental inspections to be made, and rodent control measures to be applied. The patient is next contacted by the investigator and pertinent information obtained, such as name, color, sex, age, occupation, home and business address, places frequented during the month preceding the illness. A thorough inspection is then made of the environmental conditions conducive to rodent infestation at the home and business premises and premises of places frequented. Information obtained from these investigations is recorded on report forms pre-

pared especially for this purpose. Premises associated with murine typhus fever cases that are found to have evidence of rodent infestation are treated with DDT dust on a block or rural area basis, provided that they have not already been treated with DDT dust within a recent period of time.

By treating all the premises within a block or rural area with DDT dust, the probability of covering the foci of infection is much greater than would be obtained by treating only those individual premises associated with the typhus fever cases under investigation.

From January 1948 through March 1949, 142 murine typhus fever cases of the total 245 reported to the State Health Department for this period were investigated. As a result of these investigations 1,996 premises were treated with DDT dust requiring a total of 7,850 pounds of the material. Of the 112 cases investigated, 116 of the persons having the disease lived or worked in areas that had not been previously dusted with DDT. Therefore, 81.7 per cent of the total number of cases investigated were in undusted areas and 18.3 per cent in areas that had previously been dusted with DDT.

The number of cases recorded in DDT dusted areas included premises that had been dusted 120 or more days previous to the time the cases were reported. This means that these premises were in effect without control measures. Experience has shown that DDT dust is relatively ineffective in controlling the rat flea typhus vector after being exposed to the natural elements for periods of about 120 days or longer.

As a result of this study the following statistical information is presented:

TABLE 1
*Number of Murine Typhus Fever Cases Investigated
by Color, Sex and Age in Georgia
1948, and January-March (incl.), 1949*

Age Groups	State Total Number	White		Colored		State Total (Per cent)		
		Total Number	Male	Female	Total Number			
All ages	142	128	79	49	14	7	7	100.0
0-9	10	10	6	4	0	0	0	7.0
10-19	27	25	18	7	2	0	2	19.0
20-29	26	25	12	13	1	1	0	18.3
30-39	27	23	12	11	4	1	3	19.0
40-49	22	18	12	6	4	2	2	15.5
50-59	12	10	7	3	2	2	0	8.5
60-69	15	14	9	5	1	1	0	10.6
70 and over	2	2	2	0	0	0	0	1.4
Unknown	1	1	1	0	0	0	0	0.7

From Table 1 it is shown that 71.8 per cent of reported typhus fever cases were in the age groups between 10 and 49. It may be further observed that the disease was found in all age groups which indicates that there is no age-specific immunity to the disease. This fact sub-

TABLE 2

*Number of Murine Typhus Fever Cases Investigated by Occupational Groups in Georgia
1948, and January-March (incl.), 1949*

Occupational Groups	State Total Number	White			Colored			State Total (Per cent)
		Total Number	Male	Female	Total Number	Male	Female	
All occupations	142	128	79	49	14	7	7	100.0
Home	67	63	20	43	4	0	4	47.2
Agriculture	46	41	41	0	5	4	1	32.4
Industry	12	9	7	2	3	3	0	8.5
Business	4	4	4	0	0	0	0	2.8
Servants	1	0	0	0	1	0	1	0.7
Professional	4	3	2	1	1	0	1	2.8
Food Handlers	4	4	3	1	0	0	0	2.8
Clerical	1	1	1	0	0	0	0	0.7
Miscellaneous	3	3	1	2	0	0	0	2.1

TABLE 3

*Number of Murine Typhus Fever Cases Investigated by Incorporated and Unincorporated Areas in Georgia
1948, and January-March (incl.), 1949*

	State Total Number	State Total (Per cent)
Total	142	100.0
Unincorporated	101	71.1
Incorporated	41	28.9

stantiates previous murine typhus fever studies, particularly the study made by Bowdoin and Boston² of 3,897 murine typhus fever cases reported in Georgia for the period 1932 through 1938.

The incidence of murine typhus fever among occupational groups may be observed from Table 2. Of the total number of cases investigated, 79.6 per cent were in the occupational groups of home and agriculture, consisting primarily of rural cases. Of these two groups, the incidence was greater among females associated with the home. The incidence of the white female group was about ten times greater than the colored female group. Furthermore, the incidence in the white female group amounted to approximately one-third of all the cases investigated.

As shown in Table 3, the incidence of murine typhus fever was greater in unincorporated or predominantly rural areas in the State. Of the 142 cases investigated, 101 or 71.1 per cent were in the unincorporated areas. This appears to be a definite change in the problem from urban to rural areas as compared with previous observations. The study made by Bowdoin and Boston² also showed that 57.2 per cent of the cases were in the rural areas. This change in the murine typhus fever problem from urban to rural areas no doubt has been influenced by control measures, primarily DDT dusting. Effectiveness of control measures may be shown by the fact that only 18.3 per cent of the 142 cases investigated in this study could be associated with previously DDT dusted areas; also by the decreased incidence of murine typhus fever in cities and towns as shown in Table 4. In this table, the five counties in Georgia with the largest population are considered.

TABLE 4

*Reported Murine Typhus Fever Cases for the Five Counties in Georgia With the Largest Population
1945 and 1948*

Year	Counties					Total
	Fulton	Chatham	DeKalb	Bibb	Richmond	
1945	137	143	20	63	64	427
1948	4	10	0	1	3	18

Per cent

Reduction

3-year period

1945-1948 ... 97 93 100 98 96 96

We believe this program of investigation and control of reported murine typhus fever cases has been effective, and well received by the local physicians, health officers, and the general public. It is the plan of the Typhus Control Service to expand this investigative program during the year 1949. In the proposed expanded program, all murine typhus fever cases reported to the State Department of Health will be investigated and control measures applied by the Typhus Control Service in the manner which has been described in this paper.

ROY J. BOSTON, M. S.

Director, Typhus Control Service

REFERENCES

1. Boston, Roy J.: Expanded Typhus Control Program in Georgia, *J. M. A. Georgia* 34: 231-232 (Nov.) 1945.
2. Bowdoin, C. D., and Boston, Roy J.: A Preliminary Report on the Practical Epidemiology and Control of Endemic Typhus Fever in Georgia, *Am. J. Trop. Med.*, vol. 20, No. 4 (July) 1940.

NEWS ITEMS

Dr. William B. Armstrong, Atlanta, announces the removal of his office to Suite 231, 490 Peachtree Street, N. E., Atlanta.

* * *

Dr. Edward L. Askren, Jr., Atlanta, announces the removal of his offices to 125 Forrest Avenue, N. E., Atlanta, for the practice of ophthalmology.

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Dr. B. T. Beasley, Atlanta, was re-elected secretary-treasurer of the Southeastern Surgical Congress at the 17th annual post-graduate assembly held recently in Biloxi, Miss. Dr. Beasley has held this office since the founding of the congress 20 years ago. The next annual meeting of the congress will be held in Washington, D. C., March 6-9, 1950, at the Shoreham Hotel. Drs. Lester A. Brown and A. H. Letton, both of Atlanta, were appointed on the Home and Library Committee of the congress representing 12 southeastern states and the District of Columbia. Dr. Peter B. Wright, Augusta, head of the department of orthopedics, University of Georgia School of Medicine, presented a paper on "Supracondylar Fractures of the Humerus." Other Georgia physicians attending the congress were Drs. Exum Walker, John P. Garner, Atlanta, W. J. Williams, J. P. Hitchcock, R. C. Major, W. A. Risteen and Thomas W. Goodwin, Augusta, Harry Talmadge, Athens, and Kenneth Hunt, Griffin.

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Dr. Maxwell Berry, 1010 West Peachtree St., N. W., Atlanta, has become a diplomate of the American Board of Gastroenterology, and has been elected a fellow in the American College of Physicians.

* * *

Dr. MacKenzie Brown, Albany, anesthesiologist at Phoebe Putney Hospital, has been named Georgia delegate to the American Society of Anesthesiology. The appointment was made by the board of directors of the Georgia Chapter of the American Society of Anesthesiology, meeting in Savannah following the annual session of the Medical Association of Georgia.

Dr. Abe J. Davis, Augusta, Richmond County Health Commissioner, recently delivered the principal address before the members of the Augusta chapter of Alcoholics Anonymous. Dr. Davis highly commended the group "for their worthwhile approach to the many problems presented by alcoholics."

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Dr. Hal M. Davison, Atlanta physician and president of the American Therapeutic Society, spoke on "A Doctor's Philosophy" at the golden jubilee meeting of the society in Atlantic City, June 2.

* * *

Dr. T. C. Davison, Atlanta surgeon, was elected president of the American Goiter Association, at its annual meeting in Madison, Wis., May 27. Dr. Davison, who has been corresponding secretary of the Association since 1941, succeeds Dr. Samuel Haines, of the Mayo Clinic, Rochester, Minn., as president. The American Goiter Association comprises surgeons and goiter specialists in the United States, Canada and several other countries. Dr. Davison is a past president of the Fulton County Medical Society and also of the Southeastern Surgical Congress. Other Atlanta surgeons attending the meeting were Drs. Ben H. Clifton, George W. Fuller, A. H. Letton, J. D. Martin, Jr., and D. Henry Poer.

* * *

The Dougherty County Medical Society held its meeting at the Phoebe Putney Hospital, Albany, May 23. Dr. Paul T. Russell, Albany, secretary of the society, was in charge of the program. Dr. G. Lombard Kelly, Augusta, dean of the University of Georgia School of Medicine, spoke on two subjects, "Impotence" and "The Integration of Medical Education and Medical Care in Georgia." Dr. Kelly wants a state constitutional hospital board for State hospitals. He told the Dougherty County Medical Society and Southwest Georgia physicians that such a board could better operate State hospitals than the State agencies they now are under. He said they could be backed by internships and other aids from Georgia's medical schools. "The plan would supply staffs for the State institutions," he declared. "All inmates would get better care, and a careful screening process could be set up which might save some patients from having to enter mental or other institutions."

* * *

Dr. W. T. Duke, of McRae and Atlanta, recently went to Camilla to handle the practice of Dr. M. W. Williams during June and July while Dr. Williams is at Harvard Medical School, Boston, taking a special course of study. Dr. Duke will have the entire facilities of Williams Clinic. A graduate of Emory University School of Medicine, Atlanta, and a flight surgeon for four years with the U. S. Army Air Corps during World War II, he received further training at Piedmont and Grady hospitals, Atlanta.

* * *

Dr. W. N. Etheridge, formerly of Atlanta, announces the opening of his offices in Greensboro for the practice of medicine.

* * *

Dr. Henry Arthur Foster, a native of Heard County, announces his association with Dr. R. S. O'Neal, 116 Church Street, LaGrange, in the practice of medicine and surgery. Dr. Foster graduated from the University of Georgia School of Medicine, Augusta, and interned at Georgia Baptist Hospital, Atlanta, and at the City Hospital, Columbus. He spent two years in the U. S. Army, and was discharged in May as a captain.

* * *

The Georgia Heart Association sent six delegates to the assembly of the American Heart Association meeting in Atlantic City June 5. Meeting of the assembly, which is the policymaking body of the Association, climaxed a four-day schedule which included sessions of the American Council on Rheumatic fever, the American Heart Association Scientific Council, and its

section on circulation. Delegates were Drs. Bruce Logue, Atlanta, president of the Georgia Heart Association; Harry T. Harper, Jr., Augusta; Minor Blackford, Atlanta; J. A. Redfearn, Albany. Also James V. Carmichael, Cody Laird and Linwood Beck, executive secretary of the Georgia Heart Association, 903 Grant Building, Atlanta.

* * *

The Georgia Medical Society held its regular meeting at 612 Drayton Street, Savannah, June 14. Scientific program: "The Medical Aspects of Atomic Energy," Dr. Monroe J. Epting. Discussion led by Dr. E. R. Cook. Dr. Sam Youngblood, Jr., secretary.

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Dr. J. T. Glover, Atlanta, announces the opening of his offices in the County Office Building, Buchanan, for the practice of medicine.

* * *

The Human Betterment League of Georgia was recently formed in Augusta with nine well-known Augustans as directors and charter members. President of the new organization, which members hope will become State-wide in scope, is Dr. G. Lombard Kelly, dean of the University of Georgia School of Medicine. Purpose of the Human Betterment League, according to Dr. Kelly, is to promote a better understanding of Georgia's sterilization law and to disseminate literature dealing with that method of perfecting mentally handicapped in this State. Dr. Kelly said that while only Augustans are now associated with the new group, an advisory committee will be formed shortly and is to be composed of persons residing in various sections of Georgia.

* * *

Dr. L. R. Jelks, surgeon and physician of Reidsville, was recently elected as chairman of the Tattnall District Committee, Boy Scouts of America. Dr. Jelks was one of the leading figures in the reorganization of Troup 30 of Reidsville, was unanimously elected by the 18 men present for the important job of scouting in Tattnall County.

* * *

Dr. W. C. Hafford, Waycross physician and surgeon, and president of the Okefenokee Association, Inc., was recently honored when the entrance trail from Okefenokee Swamp Park to the heart of the Okefenokee "lost World," traversing old Seminole Indian waterways, was named Hafford Trail. Hafford Trail begins at the Swamp Park boat docks, near Waycross, and extends into the great swamp, linking a chain of lakes and boats runs which constitutes a waterway through the entire 600-square-mile swamp. The trail will be a permanent memorial to Dr. Hafford, first president of the non-profit corporation which developed Okefenokee Swamp Park. He continues to serve as president, and is directing an extensive beautification program which is just getting under way. The trail will be appropriately marked.

* * *

Dr. James A. Johnson, Jr., Manchester physician, was recently named Georgia's outstanding young man of 1948 at the Georgia Junior Chamber of Commerce 1949 convention in Augusta. Dr. Johnson previously received a certificate of merit as the outstanding Jaycee in the State during 1948.

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Dr. Steve P. Kenyon, Dawson physician, and a past president of the Medical Association of Georgia, recently delivered the annual alumni address at Mercer University, Macon. The exercises were held in Willingham Chapel at Mercer University. Dr. Kenyon graduated from Mercer in 1912 and received his doctor of medicine degree from Emory University School of Medicine, Atlanta, in 1918. He has been a member of the Board of Examiners since 1939, the State's official medical licensing body. He has also been active in county and district medical groups and has served as chairman of the Council of the Medical Association of Georgia.

Dr. A. H. Letton, Atlanta, recently addressed the American Goiter Society at the annual meeting in Madison, Wis. The subject of his paper was "Struma Lymphomatosa." At the annual meeting Dr. Letton was elected to membership in the American Goiter Society.

* * *

Dr. Spence McClelland, Atlanta, announces his association with Drs. Allen H. Bunce, Mark S. Dougherty and Robert Carter Davis at 98 Currier Street, N. E., Atlanta. Internal medicine. Dr. McClelland graduated from the University of Georgia School of Medicine, Augusta, in 1944, and served his internship in the Medical Corps of U. S. Navy, Bethesda, Md. He served 18 months at Saipan. He had two years in internal medical at University Hospital, Augusta. For the past year Dr. McClelland was resident physician at Crawford W. Long Memorial Hospital, Atlanta.

* * *

Dr. Thomas A. McGoldrick, Jr., Savannah physician, addressed members of the Kiwanis Club at the Hotel DeSoto, Savannah, May 24. He spoke on "Socialized Medicine."

* * *

Dr. Jay McLean, Washington, D. C., noted pathologist and radiologist, is the new director of radiotherapy at the Savannah Tumor Clinic. Dr. McLean is succeeding Dr. Charlotte Donlan at the clinic. He is a graduate of Johns Hopkins University School of Medicine, Baltimore, and has studied at the University of Leipzig and was surgical assistant at Selpetriere Hospital, University of Paris. During World War I, although still a medical student, he served as assistant surgeon at the American Ambulance Hospital, Juilly, France.

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Dr. W. W. Meriwether, Macon city physician, visited 134 patients during the month of May. Dr. Meriwether said the figure was the lowest for any month this year. Of the 134 patients seen, seven were sent to the hospital.

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The Milledgeville State Hospital, Milledgeville, announces that four new physicians have been added to the staff. They are Dr. Norman J. Crowe, Sylvester, Dr. Lewis L. Hatcher, Dublin, Dr. R. D. Walker, Mauk, and Dr. G. B. Adams, Cortland, N. Y., who is a pathologist. Announcement was made by Dr. T. G. Peacock, medical director of the hospital.

* * *

Dr. Isaac B. Howard, Williamson veteran country physician, rides in ancient buggy for neighborhood celebration in tribute to his 40 years of practice. Dr. Howard switched to travel by auto years ago but he reverted to horse and buggy and old-fashioned derby hat at the celebration—just for sentiment's sake. "During his practice he has delivered 2,643 babies and has worn out two horses and 26 automobiles," he said.

* * *

Dr. and Mrs. W. D. Mixson, Waycross, observed their golden wedding anniversary at the home of Dr. and Mrs. Leo Smith, Waycross, June 4. Dr. Mixson has also practiced medicine for 50 years and was among the group of Georgia physicians who were honored with a certificate of distinction and a gold lapel button at the annual session of the Medical Association of Georgia, held recently in Savannah. Congratulations Dr. and Mrs. Mixson.

* * *

Dr. Jule C. Neal, Jr., formerly of Augusta, announces his association with Macon Hospital, Macon, for the practice of medicine.

* * *

The Macon Hospital, Macon, announces that nine new interns from the University of Georgia School of Medicine, Augusta, have been added to the hospital staff. They are Remer Young Clark, Jr., Joe W.

Daniel, Thomas J. Howard, Claude Lee Penington, Jr., Charles Joseph Rey, Jr., Robert Eugene Roberts, Cleveland Thompson, Jr., and William Mark Watkins. Other personnel changes or additions, announced by Dr. C. L. Ridley, hospital superintendent, are Dr. James C. Smith, assistant resident in obstetrics and gynecology; Dr. Ralph Roberts, Dr. Lee Williams and Dr. William C. Sams who will be advanced to residents in surgery, obstetrics and gynecology. Dr. Henry K. Jarrett, Dr. John Moorman and Dr. John DuPree will be advanced to assistant residents in surgery.

* * *

Dr. Thomas B. Phinizy, Augusta, has accepted an appointment as professor of public health at the University of Florida, Tallahassee, Fla. A graduate of the University of Georgia School of Medicine, Augusta, Dr. Phinizy for some years was Richmond County health commissioner. He obtained a leave of absence during World War II to serve with the Rockefeller Foundation on health projects in Costa Rica and the Dominican Republic.

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Phoebe Putney Hospital, Albany, announces the arrival of three interns to work and study during the summer, the first undertaking of its type at the hospital and another in a series of improvements designed to bring approval by the American Medical Association of a full-scale intern and resident program. The interns are two senior medical students from the University of Georgia School of Medicine, Augusta, and a junior medical student from Vanderbilt University School of Medicine, Nashville, Tenn. They are Abie Goldsmith, Albany, and Bill Chambliss, Dawson, senior students, and Charles Marks, Albany, a junior student.

* * *

The Richmond County Board of Health, Augusta, will have the assistance of the 18 junior medical students who will work with the board of health during the summer months in order to learn public health service methods. Dr. Abe J. Davis, Richmond County health commissioner, announced recently. Six students will be assigned to duty each month. They will work with regular staff members in the daily work of the health department. The plan will prove valuable in many respects, Dr. Davis said. Dr. Davis also reported that Dr. Walter Martin of Shellman, is the health department's new clinical director. The health department now operates six well-baby conferences, three VD clinics a week, an infant clinic, a food handler's clinic, and a chest clinic. These will be supervised by Dr. Martin.

* * *

Dr. O. L. Rogers, Sandersville physician, was recently honored by the *Sandersville Progress* with "our orchid of the week". We quote from the editorial pages of the *Progress*, "Dr. Rogers has practiced medicine in Washington County and Sandersville for half a century and with his work of fighting plagues and battling epidemics, he has found time to respond when called upon to talk to the P.T.A.'s and clinics or social and civic clubs and has always taken an active part in the religious affairs of his community. He has worked long and faithfully and we're sure he has inspired others to carry on the practice."

* * *

The Sixth District Medical Society held its summer meeting at Mary Persons School, Forsyth, June 29. Scientific program: "Address of Welcome", Dr. George Alexander, Forsyth; "Urologic Procedures in General Practice", Dr. Willard R. Golsan, Macon; "Rectal Bleeding", Dr. A. M. Phillips, Macon; "Recent Advances in Radiology and Pathology", Dr. Max Mass, Macon; "Gastric Lesions", Dr. Milford Hatcher, Macon; Official Remarks, Dr. Enoch Callaway, LaGrange, president Medical Association of Georgia, and Dr. Edgar D. Shanks, Atlanta, secretary-treasurer, Medical Association of Georgia. Officers are Dr. Frank Vinson,

Fort Valley, president; Dr. J. I. Hall, Macon, vice-president; Dr. A. M. Phillips, Macon, secretary-treasurer, and Dr. Dawson Allen, Milledgeville, councilor.

The Woman's Auxiliary of the Sixth District Medical Society met at the home of Mrs. George Alexander, Forsyth, for a short business meeting.

* * *

The Third District Medical Society met at Cuthbert High School, Cuthbert, June 16, with the Randolph-Terrell Medical Society hosts to members of the society and their wives. Call to order by the president, Dr. Guy Dillard, Columbus; Invocation by Rev. J. Robert Smith, Cuthbert; Address of Welcome, Dr. J. C. Tidmore, Dawson; Response to Address of Welcome, Dr. Albert Bush, Hawkinsville. Scientific program: "A Review of Common Psychiatric Disorders", Dr. C. H. Thigpen, Augusta; "Management of the Premature Infant", Dr. W. C. Cook, Columbus; "The Treatment of Burns", Dr. W. S. Flanigan, Augusta; "Toxemia of Pregnancy", Dr. Richard Torpin, Augusta; "Carcinoma of the Large Bowel", Dr. Hoke Wammock, Augusta; "Diagnosis of Esophageal Lesions", Dr. R. C. Pendergrass, Americus; Remarks by Dr. Enoch Callaway, LaGrange, president, Medical Association of Georgia, and report of councilor, Dr. W. G. Elliott, Cuthbert. Business session. Officers: Dr. Guy Dillard, Columbus, president; General R. B. Hill, Fort Benning, vice-president; Dr. T. Schley Gatewood, Americus, secretary, and Dr. W. G. Elliott, Cuthbert, councilor.

The Woman's Auxiliary to the Third District Medical Society met at the home of Mrs. W. G. Elliott, Cuthbert, Mrs. A. R. Sims, Richland, manager-elect, presiding. Mrs. Franklin Edwards, Columbus, secretary. Call to order by Mrs. Sims. Reading of the Pledge; Welcome; Response to Welcome; Remarks, Mrs. Harry Rogers, Atlanta, president, Woman's Auxiliary to the Medical Association of Georgia. Dr. Enoch Callaway, LaGrange, president of the Medical Association of Georgia, spoke on "Medical Ethics."

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The International Association of Medical Museums met in Boston recently with Dr. Everett L. Bishop, Atlanta, as president. The new international officers elected were Col. J. E. Ash, president, Dr. Matthew J. Stewart of Leeds, England, and Dr. William Boyd of Toronto, Canada, vice-presidents; Dr. Ruel A. Sloan, Army Institute of Pathology, secretary-treasurer; and the Council composed of Dr. G. Lyman Duff, Montreal, Canada; Dr. Everett L. Bishop, Atlanta; Prof. Wilfred D. Newcomb, London, England, and Prof. Daniel F. Cappell, Glasgow, Scotland.

* * *

The Fulton County Medical Society held its dinner meeting at the Academy of Medicine, Atlanta, June 16. Scientific program was presented by the house staff of Grady Memorial Hospital, Atlanta. Dr. R. Carter Davis, moderator. "Tuberculosis Meningitis", Dr. Elsworth Cale, resident in pediatrics; "Circular Thigh Amputation for Arteriosclerotic Gangrene", Dr. John Durden, assistant resident in surgery; "Conservative Treatment of Premature Separation of the Placenta", Dr. John R. McCain and Dr. Samuel R. Poliakoff, obstetrics and gynecology; "The Liver Biopsy as a Diagnostic Procedure", Dr. Elizabeth Gambrell, resident in medicine.

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Dr. Marion C. Pruitt, Atlanta, recently attended the meeting of the American Proctologic Society in Columbus, Ohio.

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Dr. Christopher J. McLoughlin, Atlanta, recently attended the meeting of the International Congress of Rheumatic Diseases in New York City.

* * *

Dr. Noah W. Baird, Atlanta, has returned to Atlanta after attending Mayo Clinic, Rochester, Minn., where he took a refresher course in surgery.

The Tuberculosis Rehabilitation Clinic was held in Savannah, June 27-29, Dr. Clair A. Henderson, Savannah, city and county health officer announced. The clinic, first in a series planned throughout Georgia, was sponsored by the Georgia Department of Public Health, the State Division of Vocational Rehabilitation and the Chatham-Savannah Health Department. "Object of the clinic is to see what services the cases need and what we can give them," it was stated. The State Division of Vocational Rehabilitation is now taking care of the current load of TB patients being discharged from Battey State Hospital and at the TB hospital in Savannah.

* * *

The University of Georgia School of Medicine, Augusta, held impressive exercises when 63 young physicians graduated in the Music Hall of the Municipal Auditorium. Forty-eight of the graduates are from the State of Georgia. Other states represent in the graduating class are Alabama, South Carolina, Indiana, New York, New Jersey, Illinois, North Carolina, Florida, Virginia, California, Pennsylvania, Michigan, Arkansas and Texas. The baccalaureate address was delivered by Dr. Groves Howard Cartledge, dean of the faculty and professor of chemistry at King College, Bristol, Tenn. He spoke on "The Doctor's Dilemma." Dr. G. Lombard Kelly, Augusta, dean of the University of Georgia School of Medicine, conferred the diplomas and administered the traditional oath of Hippocrates to the graduates. Following the graduation the seniors were guests of honor at the open house reception held, for the first time, at the School of Medicine.

* * *

Dr. C. K. Wall, Thomasville physician and surgeon, rounded out 30 years in the practice of his profession at Thomasville, June 2. The date, of course, was June 2, and the year was 1919, following his return from France where he had served two years in the medical division of the American Expeditionary Forces. Friends of Dr. Wall and the medical profession congratulate him on this anniversary and wish him continued good health and success in his chosen profession.

* * *

The Wilkes County Medical Society members were guests of the Lions Club, Washington, June 6. Dr. Dan Duggan, Washington, program chairman, spoke of the services of the physicians of Washington-Wilkes area, particularly of the three physicians who have practiced their profession a total of 156 years. They are Dr. A. W. Simpson, Sr., Dr. H. T. Harriss and Dr. L. R. Casteel. Other physicians present were Drs. R. G. Stephens, C. E. Wills, Sr., M. C. Adair, T. C. Nash and A. W. Simpson, Jr., each of whom spoke briefly. The talks were highly enjoyed by the members of the Lions Club, who were happy for the opportunity to honor their local physicians.

* * *

Georgia physicians who attended the Ninety-Eighth Annual Session of the American Medical Association held in Atlantic City June 5-10 were Eustace A. Allen, John S. Atwater, Paul W. Auston, J. Gordon Barrow, Robert L. Brown, Enoch Callaway, Joe S. Cruise, William R. Daney, Hal M. Davison, John Oliver Ellis, James Avery Finger, J. D. Gray, Charles W. Hock, Bruce Logue, Mason I. Lowance, H. E. Neiburgs, Vernon E. Powell, J. A. Redfearn, Thos. L. Ross, Jr., John S. Stewart, John E. Walker, Mercer Blanchard, Joe M. Blumberg, Allen H. Bunce, F. W. Cooper, V. Lee Darby, D. C. Elkin, Albert L. Evans, James K. Fancher, Thomas P. Goodwyn, Milford B. Hatcher, Anne Hopkins, W. R. Jones, Clifton G. Kemper, Christopher J. McLoughlin, E. E. Mandel, H. W. Minor, N. J. Newsom, Sarah P. Orton, James E. Paullin, Robert C. Pendergrass, Robert E. Ridgway, Fred F. Rudder, Cyrus K. Sharp, W. P. Sloan, Henry H. Tift, L. N. Turk, Jr., Georgia Alvari, John L. Barner, Marion Trott Benson, Jr., B. C. Blaine, Jack K. Bleich, James L. Bush, H. J.

Copeland, John W. Daniel, Jr., Charles E. Dowman, Cordelia K. Dowman, Edgar Dunstan, Leon J. Goodman, Harvey E. Griggs, C. F. Holton, A. H. Letton, Charles H. Mitchell, Samuel Poliakoff, Charles A. Priviteri, J. Robert Rinker, M. Hines Roberts, Frank B. Schley, Perry P. Volpiotto, Ernest T. Walker, Hoke Wammock, Virgene S. Wammock, C. Raymond Arp, Crawford F. Barnett, Charles I. Bryans, Jr., John F. Busey, T. J. Busey, Frank D. Edwards, George H. Faggart, H. P. Harrell, Robert P. Kelly, Harold B. Levin, John R. McCain, Fredric R. Minnich, Edward P. Muldoon, Eleanor Percival, David Henry Poer, George S. Roach, Jr., Walter C. Royals, Tofey G. Smaha, J. W. Stapleton, Joseph Yampolsky, J. Mason Baird, Walter Kanter, Saul Machover, Lester M. Petrie, David Robinson, Samuel J. Sinkoe and Geo. A. Williams.

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The Georgia Baptist Hospital medical staff held its regular monthly dinner meeting in the Nurses' Home dining room, Atlanta, June 21. Program was presented by Dr. Richard King, Atlanta, on the role of "Surgery in Bronchiectasis". Following the program an excellent film on "Early Ambulation" was presented. Dr. J. C. Blalock, Atlanta, secretary.

* * *

Dr. Carl C. Aven, Atlanta, was elected chairman of the Board of Governors of the American College of Chest Physicians at the 15th annual meeting of the College, held in Atlantic City, N. J., June 2-5, 1949. Dr. Joseph S. Cruise, of Atlanta, an associate of Dr. Aven, received his fellowship certificate at the convocation held at the Ambassador Hotel, Atlantic City, on June 4.

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Dr. James E. Paullin, Atlanta, professor of clinical medicine at Emory University School of Medicine, discussed "The Modern Trend of Education in Medical Schools" at the Fifteenth Annual Meeting of the American College of Chest Physicians held in Atlantic City, June 2-5.

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Dr. Harry Rogers, Atlanta, announces the association of Dr. William G. Whitaker, Suite 146 Doctors Building, 490 Peachtree St., N. E., Atlanta, in the general practice of surgery.

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Dr. Cosby Swanson, Atlanta, is touring Europe during the summer and will return to Atlanta on August 1. Dr. Swanson's associate, Dr. David L. Hearin, is carrying on their practice.

* * *

Dr. Elizabeth Gambrell, Atlanta, announces the opening of her office at 795 Peachtree St., N. E., Atlanta, for the practice of internal medicine.

WEST GEORGIA CANCER CLINIC DEDICATES NEW HOME

On Wednesday, July 13 a new Cancer Clinic Building was dedicated in LaGrange. Following the dedication ceremonies was given a luncheon for doctors and out of town guests. After the luncheon an interesting scientific program on cancer was presented. On the program were Dr. Alton Ochsner of New Orleans, Dr. R. L. Sanders of Memphis, and Dr. Jack B. Trunnell of New York City. All members of the Medical Association of Georgia were cordially invited to be present. Since it was necessary to know how many guests would be present for the luncheon, all doctors planning to attend were requested to drop a card to Dr. Enoch Callaway, 301 Church Street, LaGrange, stating that they would be present.

JOINT MEETING OF THE OFFICERS AND COUNCIL MEDICAL ASSOCIATION OF GEORGIA

Atlanta, June 22, 1949

This joint meeting of the officers and Council of the Association was held to discuss mainly the problem of public relations, in accordance with the wishes of the House of Delegates of the 99th annual session of the Association. Dr. Enoch Callaway, president, presided at that part of the meeting in which the officers participated, and Dr. W. F. Reavis, chairman of the Council, presided at the meeting of the Council. A quorum was declared present at both meetings.

At a previous meeting of the Council it was decided that the public relations programs of the medical associations of Florida, South Carolina, Alabama and Tennessee should be investigated and reported on. The following councilors were requested to make these investigations: Dr. W. F. Reavis for Florida; Dr. H. L. Cheves for South Carolina; Dr. J. W. Chambers for Alabama, and Dr. Lloyd Wood for Tennessee. Also these four councilors were requested to meet and consolidate their recommendations into one report, which Dr. J. W. Chambers read.

Following Dr. Chambers' report, which among other things recommended that the Medical Association of Georgia employ a layman to direct the public relations program, Dr. Enoch Callaway, president, discussed the feasibility of employing a commercial firm of public relations counsel. After full discussion of the problem, a motion was adopted that a layman be employed full-time to work with the Committee on Public Relations. It was suggested that the Committee on Public Relations be enlarged to include at all times the Executive Committee (the President, the Chairman of the Council and the Secretary-Treasurer) of the Association and the chairman of the Committee on Public Policy and Legislation of the Association, and that the members occupying the positions just named, together with the member occupying the position as chairman of the Committee on Public Relations of the Association, constitute the Executive Committee of the Public Relations Committee. Following this suggestion these appointments were made by President Callaway. Moreover, it was voted that this Executive Committee of the Public Relations Committee be authorized to plan, direct, employ, and do other things necessary to develop a suitable public relations program for the Medical Association of Georgia, provided the budget for such program does not exceed the sum of \$10,000 for the first year. Finally, it was voted that this Executive Committee of the Public Relations Committee be the Board of Review for all material to be used in the public relations program of the Medical Association of Georgia.

At the conclusion of the officers meeting, and after a short recess, the Council met. Dr. Edgar Shanks, secretary-treasurer, made a motion that \$10,000 be allocated for the public relations program, all bills to have approval of the Executive Committee of the Public Relations Committee before being sent to the Secretary-Treasurer of the Association for payment, which was approved. Dr. Shanks also presented for inspection by members of the Council a brochure prepared by Dr. Lombard Kelly, of Augusta, regarding medical education and state-owned hospitals in Georgia. After some discussion, the facts contained in this brochure were approved in principle but not in detail, and the matter was referred to the Committee on Public Policy and Legislation for study and disposition. Dr. M. C. Pruitt told of the death of the Association's attorney, Mr. Grover Middlebrooks of Atlanta, and stated that satisfactory arrangements had been made with Mr. John Dunaway, of Atlanta, to fill this position, which was approved. Dr. H. D. Allen, Jr., discussed briefly the recent controversy at Milledgeville State Hospital. A motion was made that Council go on record as being opposed to intervention by any lay management in any

The next annual session of this Association will be held in Macon April 18-21, 1950. Please be human and wait till the last minute to obtain your hotel reservations.

hospital that comes between the patient and the doctor, which was approved. Dr. Edgar Shanks stated that a former executive secretary of the Association, Mr. H. L. Rowe, had been given the title of Business Manager and Executive Secretary, and that Miss Viola Berry, whose services to the Association since Mr. Rowe's resignation had been good in every way, should be promoted to Business Manager and Executive Secretary, which was approved. Adjournment.

EDGAR D. SHANKS, M.D.
Secretary-Treasurer.

OBITUARY

Dr. Robert Edgar Adair, aged 83, Cartersville, one of the best-known physicians and surgeons of northwest Georgia, died June 17, 1949. Dr. Adair graduated from the Southern Medical College, Atlanta, in 1890. He was a member of the Bartow County Medical Society, the Medical Association of Georgia, and a fellow of the American Medical Association. Survivors are his wife, Mrs. Robert E. Adair, a daughter, Miss Frances Adair, Cartersville, and several nieces and nephews. Funeral services were held at the Sam Jones Memorial Methodist Church. Burial was in Oak Hill Cemetery, Cartersville.

* * *

Dr. Claude Lester Davis, aged 58, well-known Hinesville physician, died of a heart attack May 21, 1949. A native of Pierce County, he was the son of the late James W. and Hester Woods Davis of Patterson. He graduated at Emory University School of Medicine, Atlanta, in 1916, with honor. Dr. Davis did post-graduate work at Tulane University of Louisiana School of Medicine in New Orleans. He served as lieutenant in World War I. He was a Mason. He was a member of the Georgia Medical Society, the Medical Association of Georgia, and a fellow of the American Medical Association. He is survived by a son, L. Ainsworth Davis, and three sisters, Mrs. G. B. Eunice, Hinesville, Mrs. Mand Dixon, Patterson, and Mrs. L. O. Sapp, Mershon. Funeral services were held at the Mershon Methodist Church with the Rev. H. Lester Dixon and the Rev. Lowry Anderson, pastor of the Hinesville Methodist Church officiating. Burial was in Bristol Cemetery.

* * *

Dr. James Isaac Garrard, aged 79, veteran physician at the Milledgeville State Hospital, Milledgeville, died of a heart attack June 12, 1949. Dr. Garrard graduated from the Bellevue Hospital Medical College, New York City in 1893. He was the oldest member of the staff at the Milledgeville State Hospital, both from a standpoint of age and seniority of service, having been a member of the hospital staff for more than 40 years. He was a member of the Baldwin County Medical Society, the Medical Association of Georgia and a fellow of the American Medical Association. Dr. Garrard is survived by his wife, the former Miss Sara Hearn of Eatonton. Funeral services were held at the Milledgeville residence, with the Rev. J. Hamby Burton officiating. The members of the Baldwin County Medical Society, the Milledgeville State Hospital medical staff and the Sons of the American Revolution formed an honorary escort. Burial was in Eatonton Cemetery, Eatonton.

* * *

Dr. Daniel Henry Griffith, aged 65, Atlanta physician, died at his home on Heard's Ferry Road, Atlanta, June 2, 1949. Although a native of Arkansas, he had lived in Atlanta for about 36 years. He graduated from the Atlanta College of Physicians and Surgeons, Atlanta, in 1911 and interned for two years at the University of Chicago School of Medicine, studying diseases of the eye, ear, nose and throat. He was a charter mem-

ber of the Kiwanis club, and was a member of the East Atlanta Primitive Baptist Church. He is survived by his wife; three daughters, Mrs. Sara G. Fulghum, Atlanta; Mrs. H. J. Tancibok, Baltimore, Md., and Mrs. Gussie Sullivan, Jr., Frost Proof, Fla.; a son Daniel P. Griffith, Augusta; a sister, a brother, and four grandchildren. Funeral services were held at Spring Hill. The Rev. H. O. Nash officiated. Burial was in Decatur Cemetery, Decatur.

* * *

Dr. Raymond Harris, aged 37, Ocilla, widely known South Georgia physician and surgeon, died at the University Hospital, Augusta, June 1, 1949. He was a native of Ocilla, the oldest son of Mrs. A. S. Harris and the late Mr. Harris. He graduated from the University of Georgia School of Medicine, Augusta, in 1937. After serving his internship at University Hospital, Augusta, he was resident physician at Ware County Hospital, Waycross. He served for four years in the Medical Corps of the U. S. Army during World War II, attaining the rank of major. He was a member of the Ben Hill County Medical Society, the Medical Association of Georgia, and a fellow of the American Medical Association. Also a Shriner, Mason, member of the Fitzgerald Hebrew Congregation, Southwest Georgia Lodge of B'Nai B'Rith and Alpha Omega Alpha National Honorary Medical Fraternity. Survivors are his wife, the former Miss Helen Landey, Valdosta; a sister, Mrs. Robert Felson, and brother, Charles A. Harris, all of Ocilla. Funeral services were held at the Synagogue in Fitzgerald, with Rabbi Kohen officiating. Burial was in the Jewish Division of Sunset Cemetery, Valdosta.

CIVILIAN DOCTORS SOUGHT FOR PANAMA CANAL ZONE

Permanent appointments for physicians in the Civil Service now exist in the Panama Canal Medical Service according to an announcement from the Office of The Panama Canal, Washington, D. C.

Due to the high appeal of the health and living conditions in this tropical country, the number of appointments to be made is limited, and early applications are suggested, by the Panama Canal Office, from physicians who desire the opportunity for training and experience in tropical medicine under standard American living conditions.

Starting professional salaries are \$5,599 and \$6,540 a year, with free transportation to the Canal Zone provided for physicians, their families and household goods. In addition, doctors who receive appointments get two months paid vacation (including time lost by illness) and reduced fares on Panama Line passenger vessels.

Requirements for professional medical positions starting at \$5,599 are: Graduation from an approved medical school; license to practice medicine in a State; ability to pass a standard physical examination; completion of one year's internship in a hospital approved by the American Medical Association.

The Panama Canal Health Department operates several hospitals and a number of well-equipped dispensaries offering excellent professional opportunities. The Health Department also maintains constant vigilance over the health conditions of the Canal Zone and the adjacent cities of Colon and Panama City in the Republic of Panama. So effective have been the methods of sanitation and maintenance of health standards, that there is no more danger of contracting an infectious disease in the Canal Zone than in the United States.

Living conditions there are comparable to those in a small town in the United States, except for a fully tropical climate and the fact that food, clothing, and certain other necessities are obtained through govern-

ment commissaries. Prices in the commissaries which are in effect department stores, are approximately the same as retail prices in the United States.

Churches of the Catholic, Protestant, and Jewish faiths are well established, as are many American national civic and fraternal organizations. The public school system compares favorably with modern American school systems, and excellent facilities for educational work are provided to children of employees without charge from kindergarten through high school. Graduates of the two high schools—one in Cristobal and one in Balboa—have college entrance qualifications. The curriculum of the junior college in Balboa is comparable to that of junior colleges in the United States, and its accreditation enables students to transfer to third year work at colleges and universities in the United States.

Excellent beauty shops, movies, golf courses, and libraries are available, as well as year-round swimming, hunting, boating, sailing, deep-sea fishing, and travel. Good highways give access to the interior of Panama.

Further information is contained in a pamphlet entitled "The Panama Canal—Employment Information and Personnel Policies", copies of which may be obtained by writing the Chief of Office, The Panama Canal, Washington 25, D. C.

Physicians who are interested in a position as medical officer in the Panama Canal Zone should address their applications to the above address. Applications may also be submitted to the U. S. Civil Service Commission, Washington 25, D. C.

TRENDS OF NEW CANCER RESEARCH

Two new cancer research discoveries, one of which may some day be valuable for detecting human cancer, and the other a possible aid in treatment, were announced at this year's annual meeting of the American Association for Cancer Research.

Doctors John A. Sibley and Albert L. Lenninger of the University of Chicago have found that whenever an active tumor is present in a laboratory animal, the blood contains an abnormally large amount of a substance called zymohexase. When the tumor is removed, the amount of the substance in the blood returns to normal. The doctors are seeking a way of applying this method of diagnosis to humans.

Another research expert, Dr. Frank H. J. Figge of the University of Maryland, set out to find a way of carrying radioactive isotopes directly to a tumor without damaging the rest of the body on the way. Experimenting with porphyrins, which are glowing substances found in the body in very tiny amounts, he found that they went directly to cancer tissue. Since they stay on its outer limit, and since they glow under ultra violet light, they neatly outline the tumor. This may prove helpful to surgeons in surgical treatment of cancer.

These isotopes were also used in a Boston experiment, in order that research workers could watch what cancer tissue and normal liver tissues did with it in test tubes. They found that cancerous livers absorbed the amino acid much faster than normal livers. Eventually their experiments might help to explain why cancer cells grow disastrously faster than normal cells.—Michigan State Medical Society.

PROPOSED ANTITRUST SUITS AGAINST MEDICAL SOCIETIES

In a sharply-worded statement, commenting on Washington news reports that the Federal Administration plans to launch antitrust prosecutions against several State Medical Societies, concurrent with the opening of its drive for compulsory health insurance, the American Medical Association announced that "We will take our case directly to the American people if we find the

Government is engaged in political persecution instead of legitimate prosecution."

Dr. Elmer L. Henderson, Chairman of the Board of Trustees of the American Medical Association, declared:

"The American people will not take kindly to Gestapo activities and the doctors of this country, when the health of their patients and the welfare of their profession are at issue, will not be frightened into non-resistance by threats against them.

"We have been making our own inquiry into the activities of Government investigators and if we find that an attempt is being made to use the Justice Department for political purposes, in an effort to stifle opposition to the socialization of medicine, we will air the facts to the people and demand a Congressional investigation into such activities.

"It is both false and absurd to imply that there is a monopoly in health insurance under the hundreds of voluntary systems operating in America today, with more than 52,000,000 insured members. But there certainly would be an iron-clad monopoly if Patent Medicine Man Oscar Ewing got through his compulsory health insurance scheme and took over control of medical practice in this country.

"The American Medical Association is vigorously supporting all sound voluntary health insurance systems and is encouraging competition, between the prepaid medical and hospital plans and the private insurance indemnity companies, because we believe the American people will get better coverage, at a better price, if many competing plans are available. We don't believe the people want a Government monopoly in the health insurance field, any more than they would condone a private monopoly, and we intend to fight the Government monopoly, proposed under compulsory health insurance legislation, even if the Federal Administration resorts to terroristic practices and witch-hunting in an attempt to frighten off opposition."

VITAMIN B₁₂ EFFECTIVE TREATMENT FOR ANEMIA

Vitamin B₁₂, part of the B complex, is extremely effective against pernicious anemia, nutritional anemia, and tropical sprue, a disease characterized by anemia, three studies reported in the February 19 issue of *The Journal of the American Medical Association* show.

The studies were made at the Nutrition Clinic of the Hillman Hospital, Birmingham, Ala., the General Calixto Garcia Hospital, Havana, Cuba, and the School of Tropical Medicine, San Juan, Puerto Rico.

The studies were made by Tom D. Spies, M.D., Robert E. Stone, M.D., and Sam Kartus, M.D., Birmingham, Ala.; Ramon M. Suarez, M.D., San Juan, Puerto Rico; and Guillermo Garcia Lopez, M.D., Fernando Milanes, M.D., Ruben Lopez Toca, M.D., ad Tomas Aramburu, M.D., Havana, Cuba.

Vitamin B₁₂, per unit of weight, is the most effective antianemic substance known, the doctors say. It produces regeneration of the blood and remittance of the degeneration of the nervous system which sometimes occurs in pernicious anemia, they found.

When vitamin B₁₂ is administered to suitable patients under controlled conditions, the doctors point out, an increase in red blood cells, platelets (colorless blood cells that help in coagulation of blood), and hemoglobin occurs, and a striking clinical response occurs. Dosage of vitamin B₁₂ varies greatly from patient to patient, the studies show.

The doctors treated 35 patients. The group was composed of four patients with nutritional anemia, one with nontropical sprue, 11 with tropical sprue, five with pernicious anemia, and 14 with pernicious anemia and degeneration of the nervous system.

In each case the administration of vitamin B₁₂ was followed by striking clinical improvement, the doctors say.

Between the third and fifth day after the injection of vitamin B₁₂ the patients said they felt stronger and that their appetites had returned. Soreness and burning of the tongue disappeared by the fourth or fifth day after therapy. In patients with sprue, abdominal distention subsided.

The 14 patients with degeneration of the nervous system had pain, tingling, and stiffness in the extremities, and some had numbness and stiffness of the joints. These symptoms diminished progressively during the first 10 days after vitamin B₁₂ was injected.

Two weeks after the drug was first given, dramatic improvement in nerve involvement was observed in each case, say the doctors.

SMEAR TEST AIDS DIAGNOSIS OF LUNG CANCER

The smear test is an extremely valuable aid in diagnosis of lung cancer, according to two physicians from the Section on Surgical Pathology of the Mayo Clinic, Rochester, Minn.

Writing in the current (Feb. 19) issue of *The Journal of the American Medical Association*, Lewis B. Woolner, M.D., and John R. McDonald, M.D., say:

"Our experience with cytologic examination of sputum and bronchial secretions has served to convince us of its tremendous practical value in the diagnosis of indeterminate pulmonary lesions.

"To date we have examined the sputum or bronchial secretions of 2,188 patients. All material was reported positive or negative for cancer cells. A diagnosis of cancer on the basis of smears was given in 200 cases. In 192 of these cases, a final diagnosis of cancer was made."

Examination of sputum for cancer cells by the smear test is especially valuable for patients suspected of having bronchial cancer in whom examination by bronchoscope is not advisable, the physicians indicate, adding:

"The accuracy of diagnosis with this technic varies directly with the experience of the cytologist. Erroneous diagnoses may occur, especially in the early period of investigation before sufficient experience has been acquired. After a large volume of work has been done, however, a remarkable degree of accuracy may be expected."

"When this degree of accuracy has been attained, the findings on sputum examination in the majority of cases of cancer are as convincing to the cytologist as are the findings on tissue section."

TUBERCULOSIS

Every case of tuberculous meningitis in childhood should be regarded as a pointer to a dangerous open case of respiratory tuberculosis in the immediate entourage of the sick infant; this case should at once be sought and the appropriate action taken when found. C. O. Stallybrass, M.D., *Brit. Med. J.*, Feb. 5, 1949.

* * *

Education of the patient is a primary function of the tuberculosis institution. One of the greatest obstacles to control of the disease will have been overcome when patients and their families thoroughly understand the facts about tuberculosis and apply what they have learned. Tremendous effort goes into the finding and treating of cases, yet all of this is wasted without the sustained cooperation of the infected individual. As "the person expelling the bacilli," he must learn of his responsibility to prevent spread; he must learn how to participate in his own treatment, for in the best medical opinion much of the success of the cure is up to the patient. His education should continue until an economically competent and self-disciplined individual has returned to his community and himself become an active participant in tuberculosis control. A. Edith Fenton, R.N. (Public Health Nurse, Mt. Sanatorium, Hamilton, Ontario) *Canad. J. Pub. Health*, May, 1948.

STUDY NEW TREATMENT FOR SKIN DISORDERS

Psoriasis, a skin characterized by patches covered with silvery white scales, and neurodermatitis, an itching eruption due to nervous disorder, respond to treatment with undecylenic acid, according to Henry Harris Perlman, M.D., Philadelphia.

Undecylenic acid is a drug which resembles the natural oils of the skin.

Writing in the February 12 issue of *The Journal of the American Medical Association*, Dr. Perlman says:

"Seventeen patients with chronic psoriasis, both localized and generalized, were given gradually increased doses of undecylenic acid by mouth for varying periods of time, with improvement in the psoriasis characterized by disappearance of the lesions, permanent relief of the itching, and, in several instances, disappearance or improvement in joint pains.

"Undecylenic acid has been tried on a small number of patients with neurodermatitis and appears to have a definite effect on the lesions.

"Definite claims for undecylenic acid cannot be made from the comparatively small number of patients studied. However, undecylenic acid seems to hold a great deal of promise in the improvement and possible prevention of recurrences of psoriasis and neurodermatitis."

At present it seems that the greatest benefit from undecylenic acid in the treatment of psoriasis is in subacute and chronic lesions which are more or less generalized on the body, according to Dr. Perlman. In psoriasis of only a few years' duration, remarkable improvement was noticed after two or three weeks. In some patients, however, clinical response was not noticed until after three months, when large plaques of psoriasis were soon replaced by normal skin, he says.

"With the continued use of undecylenic acid before and after the skin has cleared up, new lesions fail to appear and in those few instances in which new lesions appeared they seemed to be short lived, disappearing spontaneously," Dr. Perlman reports.

"It is highly probable that the recurrence of psoriasis can be prevented, at least in a significant proportion of cases, by a maintenance dose of undecylenic acid."

Although the drug in its present form produces belching, nausea, diarrhea, and other symptoms when taken by mouth, most such undesirable reactions can be eliminated by development of coated capsules and by temporary discontinuance of treatment, Dr. Perlman indicates.

Describing the results of undecylenic acid therapy for neurodermatitis, he says that a 37-year-old housewife who had been treated unsuccessfully with various medicines and ultraviolet rays for lesions and severe itching of the upper eyelids was given undecylenic acid in capsules. After about a month of treatment, the itching disappeared and her eyelids became smooth.

Another housewife, 27 years of age, was extremely nervous and worried and had had a rash on her neck five months. She had been treated with various medicines without improvement. After about two weeks of undecylenic acid therapy the rash was scarcely noticeable and the itching had completely disappeared. When she was last seen only a slight redness remained where the rash had been.

"Until carefully controlled scientific investigations have been carried out, one can only speculate how undecylenic acid produces its effect on the skin in psoriasis and neurodermatitis," Dr. Perlman says. "Psoriasis may be due to a metabolic disturbance, but this is purely speculative."

This Association will meet in Macon April 18-21, 1950. It is important that you—and this means you—make your plans now to attend this important meeting.

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PSYCHIATRY AND RELIGION

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Atlanta

For various reasons, although psychiatry is now a scientifically-accepted branch of medicine, this subject is still being confused with religion. Such expressions as "Why not try psychiatry"? or "You must have faith in psychiatry", indicate the confusion which exists between these two subjects. It is this misconception which prevents many mentally-ill persons from going to the psychiatrist. Although the psychiatrist, like the surgeon or internist, appreciates a cooperative patient, he does not require that he be enthused in his attitude toward psychiatry. Psychiatry is not a cult, -ism, or new form of religion, nor is it opposed to, or in competition with religion. It appears timely to elucidate upon the similarities and differences between religion and psychiatry.

Religion, by definition, is a "belief binding the spiritual nature of man to a supernatural being", but no one attempts to define religion categorically. Religion, like psychiatry, considers man as something more than so many cells and organs. It recognizes the emotional facet of man and realizes that this facet permeates every phase of his life. Love, hate, anger, fear, frustration, hope, and despair are recognized by the minister, as well as the psychiatrist, as important factors in the daily adjustment of man. Religion encourages a sane, regular, temperate, and purposeful life, the very practices which produce the greatest peace

of mind. Psychiatrists, of all people, humbly realize the need for a satisfactory spiritual or religious adjustment, and the importance of religion as a system of faith and worship. In its recognition of the emotional life of man, religion approaches psychiatry, and when the latter considers the spiritual needs of man it comes close to religion. While one deals essentially with normal man, his hopes, fears and spiritual pursuits, the other, psychiatry, deals essentially with the ill man and his peculiar needs and problems. There is nothing in psychiatry which is incompatible with real religion.

Psychiatry has borrowed from religion the practice of confession, encouraging the patient to "talk out" his problems and thus relieve the emotional tension. Incidentally, there are priests who have taken up the scientific study of psychiatry and there are ministers who have acquired an uncanny knowledge of this branch of medicine. Dean de Ovies, in his helpful little book, "But Maybe You're Not Crazy", shows an understanding of psychiatry which excels that of many physicians. He states: "Every experienced clergyman becomes something of a psychologist . . . Those who do so learn not to call the mentally weak or ill 'sinners'." Ministers in recent years have developed an unusual interest in psychiatry, being anxious to advise their emotionally disturbed followers in accordance with scientific psychiatry. It behooves the psychiatrist, on the other hand, not to overlook the value of religion—he must never expect the patient to make an adjustment which is contrary to his conscience and religious

background.

One school of psychiatry—the psychoanalytic—emphasized the idea that suppressed wishful desires and repressed basic drives, constitute an important cause of psychoneurosis. Unfortunately, some of the enthusiasts in this school have advocated loose living and free love as a wholesome mental hygiene procedure. In fact, it is not unusual for a physician who is not a psychiatrist to state that what a certain unmarried female (or male) patient needs is to have sexual relations. Such suggestions are made without considering the individual's conscience, religious outlook, or what is even more important, his libido or biological urge. When properly investigated good reasons can usually be discovered for the way in which an individual has been and is living his life. Until a better mode of adjustment can be provided the physician will do well not to shake those props which have been developed by the patient by long years of trial and error. Religion usually constitutes one of these reliable props.

The psychiatrist who is treating chronic alcoholics must not overlook the need for the patient to develop a new attitude toward religion. Religion encourages an humble attitude toward life. The successful members of "Alcoholics Anonymous" usually accept the belief in a Higher Power, and the humble attitude of a worshiper. Egotism, braggadocio, cockiness, and alcoholism usually ride together, while modesty, faith, humility and religion go hand-in-hand. The normally religious man shows more self-control, poise, tranquility and maturity than does the insecure, exhibitionistic neurotic or alcoholic. Thus, psychiatry has learned a new avenue to religion.

For hundreds of years religion, in one form or another, has supplied just the right amount and quality of emotional adjustment to the average man. However, some neurotics have found in certain religions

another outlet for the expression of their unconscious complexes. The psychiatrist is quick to recognize this vicarious use of religion to cover up neurotic or unconscious tendencies. According to the psychoanalyst, religion deals with conscious processes (or should) whereas psychiatry deals with unconscious processes. It would be an interesting study to determine in an average congregation to what extent religion is being used unduly for its psychotherapeutic value and to what extent it constitutes true religion. Here again, it would probably be safer not to shake those props which human beings have learned to live by.

Ritual, as we see it in religion and psychiatry, also deserves some attention. Dean de Ovies has an interesting chapter in his book on "Ritual and Religion", in which he describes the neurotic's ritual, such as excessive hand-washing or other compulsive acts, and explains that these are overt manifestations of excessive or pathological anxiety. (He might also have included neurotic worship or *excessive* reliance upon faith or the church as other forms of neurotic ritual.) He says: "It is not religious ritual unless there is religion back of it." Religious ritual is a "deliberate, constructive and normal technique." To the abnormal person, the neurotic, ritual is a thing in itself a compensation for some anxiety or fear, but religious ritual is only a "means of keeping alive his faith." The author states of psychiatry and religion: "The two fields are not mutually exclusive except in case of ignorance of one of them. The religious psychiatrist and the intelligent priest have very much in common, just as psychiatry and a reasonable religion have."

My experience with a large number of psychopathic personalities in the military service illustrates in a different manner this confusion between religion and psychiatry. While the chaplains attempted praying for

these recalcitrant characters, the line officers and many physicians preferred to look upon their behavior as "meanness" which is another way of saying "sin." Viewing abnormal behavior as sin or immorality has gotten us nowhere in the scientific study of crime and its prevention. If physicians could see only the moral issues involved in venereal diseases we probably would not have the scientific knowledge we possess today regarding gonorrhoea and syphilis.

Prayers and punishment will not change the psychopath or criminal, but by scientific study we may be able to analyze and control his abnormal behavior. Getting away from the old idea of sin and punishment, some states are adopting the practice of indeterminate sentence in the handling of criminals. When a man is found guilty of a crime he is given a thorough study, including social, economic, environmental, intellectual, and psychiatric, to determine the possibilities of rehabilitation, instead of a sentence of 3 to 5 years which would only crystallize his criminal tendencies. The psychiatrist looks upon abnormal behavior simply as a symptom of a pathological personality. This practice of confusing psychiatry and religion has actually perverted and retarded a scientific study of crime and criminals.

Psychiatry differs from religion in that it is a specialized branch of medicine, dealing with abnormal individuals; while religion deals with the spiritual needs of normal as well as abnormal persons, psychiatry deals with disease, pathology, abnormal mental processes, and aberrations in human behavior, whether moral or immoral. The physician who looks upon psychiatry as a form of counselling, religious or otherwise, or as simple confession, has much to learn about this specialty. Many of psychiatry's problems, such as cerebral atherosclerosis, paresis, senility, encephalopathy due toavitaminosis, toxic mental reactions, circu-

latory disturbances of the nervous system, and infections of the central nervous system, are organic diseases which are obviously not concerned with religious matters. The psychiatrist, in other words, in a great many of his patients, is concerned with the same pathological processes which interest all physicians.

There are particular mental illnesses—involutional melancholia and manic-depressive psychosis, depressed type—which have increased the confusion between religion and psychiatry. Depressed spirits, melancholia, is characteristic of these diseases. When a person becomes depressed he feels low, unworthy, and often has guilt complexes. This feeling is secondary to the depressed emotional reaction and has no basis in fact. It is only a symptom and should not be given the importance of an etiologic factor. The guilt complex may reach a delusional stage: the patient feels people are calling him a heel (because that is the way he feels), or he (or she) may state that he has committed the "unpardonable sin." The patient often worries, moans, cries and agitates himself, as well as his family and friends, about this alleged terrible deed.

In some instances the "sin" is entirely delusional, while in others the patient, having become depressed, searches his past to determine what he has done to produce this sad state of mind. He may seize upon some actual misdeed, no matter how trivial, and misinterpret this as the cause of his melancholic condition. Masturbation is often given by the patient as the cause of his depressed spirits. Occasionally even the physician is led into this erroneous thinking and attempts to ameliorate the alleged sin in the patient's mind by correcting the misdeed. One depressed patient who had taken a doll from a general store some 20 years before, gave this as the cause of all her mental agony. Urged by the physician, she insisted upon finding the owner of the store, paying

him for the doll, but of course this failed to relieve her tortured mind. The physician and the patient were treating only one symptom of an endogenous depression. The patient's husband complained that at the next church service they attended, she stood up and offered as contribution all the money that she and her husband would earn for the next 12 months.

These patients often consult their minister before going to the doctor, and the former is even more confused than the latter by these weird expressions of guilt. Prayer, reassurance, reading the Bible, and attending services, not only fail to dislodge this serupulous thorn which is built upon a pathological emotion, but these procedures actually make the patient feel even more unworthy and guilty. In fact, since depressive patients are basically conscientious, worrying, altruistic persons anyway, it is not at all unusual for a minister to develop this kind of mental illness. The rural minister who is attempting to care for 5 or 6 churches is particularly prone to drive himself to a state of nervous exhaustion and thereby develop a depressive reaction.

These depressed patients are usually advised by well-intentioned friends, or even by some physicians, to read this or that book of an inspirational nature. These books usually have a strong religious slant and only serve to emphasize the patient's feeling of guilt. For instance, a nervous, worried, depressed woman with many groundless feelings of guilt and remorse, given a religious inspirational book to read, only becomes more worried, anxious and depressed. One patient said to the psychiatrist: "If I could do what it says I wouldn't need any help." The patients feel more helpless and hopeless when they find themselves unable to carry out the many suggestions offered. "Get out and go", "snap out of it", "forget your worries", are some of the asinine, superficial statements made by inex-

perienced friends or writers who fail to take into consideration the basic pathology here. All this results from confusing religion with psychiatry. We shall find that manic-depressive psychosis has some physiological or chemical disturbance, just as certain as diabetes or pernicious anemia, once we stop looking upon it as a religious or environmental disturbance and study it more thoroughly in the research laboratories.

The wrong kind of religion can be blamed for precipitating many instances of mental illness. Hardly a week passes that I do not observe a mentally disturbed person whose illness was at least precipitated by too much, or the wrong kind of "religious" enthusiasm. Back in 1938 Bender and Yarrel wrote an interesting article on the psychoses occurring among the followers of Father Divine. While most educated ministers today are aware of the dynamic, changeable, and sometimes dangerous swings in human emotions, there are still several off-brand denominations which thrive more upon disturbing human emotions than providing intellectual or spiritual satisfaction.

It must be recognized that many individuals who become interested in these particular religions are often already inadequate, emotionally unstable, or intellectually below par. A young man who had been attending a revival meeting nightly for 2 weeks, presented himself laden with guilt feelings and a desire to "carry Christ's word into every home." He was in a mixed reaction of manic-depressive psychosis but made a satisfactory recovery with rest, psychotherapy, and staying away from church. Another patient, a woman who lived across the road from her church, was burdened with the delusional idea that "I have sinned against the Holy Ghost." Occasionally these religiously disturbed patients become involved in an attempt to interpret the scriptures, or make an effort to champion one particular denomination against all others.

But the religious scruple, whatever it might be, is only one symptom of a melancholia and in itself does not mean a thing.

Along this line also it should be mentioned that college students with a cyclothymic makeup should avoid too much abstract religious and philosophical study. These idealistic youths sometime become as deeply involved, although on a different intellectual plane, as do the uneducated religious enthusiasts. Their minds are much better applied to practical affairs. It takes a schizoid to go deeply into the abstract, whether in religion, philosophy, or science.

It should be clearly stated that the disturbing emotional experience is only a precipitating factor, and that the psychiatrist always finds well-recognized psychiatric entities in the analysis of these patients. Schizophrenia, manic-depressive psychosis, and involutional melancholia are the diseases usually found as the underlying illness. In the difficult cases, when the usual treatments fail to produce the desired results, these patients may wander from doctor to doctor, from minister to minister, or from one friend to another, describing their woeful complaints, and leaving the uninitiated completely perplexed about whether this is a religious, medical or psychiatric problem. Time, a routine life, occupational therapy, and not too much psychological tampering constitute the best treatment for this chronic stage of the disease.

To sum up, psychiatry and religion, although they have some common frontiers, are really two entirely different endeavors. While religion attempts to provide all men with a spiritual and emotional adjustment, psychiatry is a specialized branch of medicine which has to do with the diagnosis and treatment of abnormal personalities and mental diseases. While the minister must be ever alert for the unexpected development of mental illness in a member of his

flock, the psychiatrist must recognize the natural need for religion in his patients and not overlook the importance of this factor in their rehabilitation. The difference between abnormal behavior and sin must be more clearly understood, not only by ministers and physicians, but also by jurists and legislators. There is a distinct indication for less uncontrolled emotionalism in religion while psychiatry must rid itself of those who would advocate loose living and lax morals as a way to good mental hygiene.

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WHAT THE MEDICAL PROFESSION IS DOING FOR YOUR EYES

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For the past several years I have had the pleasure of speaking to numerous medical and lay groups, but the pleasure I am experiencing in speaking to this august group of the Medical Association of Georgia, their wives and guests surpasses all others. Previous to this evening's talk to you, I have been rather rigidly limited to the presentation of a highly technical discussion of one single medical subject, mostly concerning the treatment of injuries arising in the field of manufacturing chemistry. In fact my only claim to fame, if such it can be called, is in the field of chemical burns of the eye. To say that these papers have not been a source of great personal satisfaction would be a misstatement. Tonight, however, our mutual friend and colleague, Dr. Braswell Collins, has invited me to speak on a subject of my own choosing. Needless to say, my suggestion was given due consideration by

Dr. Collins and the committee on speakers, but I have a hunch that they did not realize that actually I had in mind that I would play hookey a bit from the usual stiff medical paper and just talk to you about this and that concerning eyes—a sort of a hit-and-run discussion but with a real purpose behind it. I won't tell you right now what the underlying purpose is, but that will come as we talk.

Eyes are in general considered by all of us as a pair of organs which we all have and through which we see all we wish to see. Organs, if you please, that should never be health problems, but always at our beck and call day and night. Now that is true in most cases, but faults in their construction, and diseases affecting them, occur often enough that each and every one of us has occasion to wish that we knew more about them. To that end two fields of medicine and one distantly related craft are constantly trying to improve conditions concerning the eyes.

The general practitioner, of course, as in everything medical, is the standby by whom most of the eye conditions are first seen. That I know to be true. My nine years of general practice was adequate experience to prove this beyond question of doubt. For the general man to keep up on everything is next to impossible and I imagine that many of you general men do as I did, confine your reading to the things you see most often and for that reason eyes just do not receive the attention that you would like to give. You should be able to rely on your state meeting to bring you up-to-date.

The ophthalmologist (plain English for you girls, the eye specialist) of course is a general practitioner gone to the seeing-eye dogs. Seriously, he has trained himself to know eyes, and can thereby read at least part of what is published about them.

The optometrist is a non-medical man.

Of course, we like to think of him as an ex-common laborer but actually he is trained to refract, or test eyes for glasses and really, with the facilities they are permitted to use by law, they do a reasonably good job. As most of you know there is a definite trend for the ophthalmologist to bring the optometrist into his practice to relieve him of the routine refractions. The medical man of course supervises the work of the optometrist in order to pick up the medical conditions. From those who are using this plan I hear very favorable reports.

The optician is purely a technician who has neither medical nor optometric training. His job is to receive the prescription from the refractionist and to grind lenses and mount them in frames in such a way that they will be placed properly, according to set rules, before the patient's eyes.

Refraction is the routine of the ophthalmologist's work, so it deserves prime consideration. It is defined as the act of making a routine diagnostic check-up on the medical condition of the eyes and adopting to those conditions lenses which will properly focus light rays or, if you please, images, on the proper place on the retina and correlating the action of the two eyes so that accurate and comfortable vision is achieved. In many instances these cases come to us because of a casual suggestion by the general man that they need glasses. Now what should be the basis of such a reference? You should have in your history of the patient, learned that he is complaining of one or more of the following symptoms: poor vision, failing vision, headache, dizziness, pain in the eyes, reading difficulties, double vision, light-sensitiveness, poor light adaptation or other things which after a careful physical examination are impossible to relate to physical abnormality. Then, and only then, is it fair to the patient to

make that reference to the eye specialist. And by the way, a little note to the eye man is most helpful and insures that you will receive a report to add to your records for future use.

In the hands of the ophthalmologist your case is then handled in this manner. A more detailed history is taken and with lenses we try for improved vision. In the young, under forty that is, "eye drops" are used. This is a much misunderstood procedure. The human eye is endowed at birth with a high accommodative reserve of about 15 diopters. As only 3½ diopters are required to focus the vision from twenty feet to sixteen inches (reading distance) we therefore have some eleven or twelve units of accommodation over which we have no control and can have no accurate idea of how much is being used. We know that this accommodation can be temporarily suspended by the use of a simple cycloplegic in the form of homatropine drops in a small amount, activated by a physiologic catalyst in the form of paradrine. Under this cycloplegic then, we can measure the eye as accurately as if it were a simple box kodak which the eye resembles under these circumstances. In addition, we know that this accommodative reserve decreases as the individual gets older, and at forty there is only enough left to accommodate the eye to reading. Therefore, at that point, there is no indication for "drops" for now we know what the reserve is and can, if in question, quite accurately measure it. This is fortunate, for also at this age the disease glaucoma begins to be prevalent and "drops", in the face of this condition, or its incipient stages, can be the cause of the onset of the increased intraocular pressure. The use of "drops" should never be risked except in refractions which cannot be done satisfactorily without them, and only then if the lack of glasses is important enough

to be more damaging to the patient than a possible glaucoma.

The results of refraction are of course more interesting to you than how or why it is done. In the young, the glasses are single vision and may be clear, tinted sport or safety glasses, according to the needs of the patient. In the older, or over forty cases, they may be single vision, reading only, or bifocals, and in each case may be tinted, sport or safety type as the need demands.

Now this business of glasses needs some clarification. They are defined as a mechanical device which, when placed properly before the eyes, produce either an improvement or a perfection of vision. All too many people accept a pair of glasses with the belief that they have been given something magic in character and ability but such is not the case. While we dislike the implication, a pair of glasses is simply a crutch to be used for certain purposes, and is not intended nor is it possible for them to have any curative powers. This being the case then, we must all remember that a mechanism like this is no different than any other mechanical device, such as an automobile, and that they must be worn as a mechanism and must be serviced at regular intervals to keep them placed before the eyes in the manner in which they were originally designed. Single-vision glasses are more like the old model T Ford, simple in design and therefore requiring less adjustment and being easier to wear. The bifocal and trifocal lenses, however, resemble the modern gadget-infested car and must be used with more attention to detail and must be serviced more often. It is perfectly natural for the individual to require more time to learn to use the more complicated mechanism. For our own pleasure and the efficiency of our eyes, it is to be remembered that bifocals do not follow any set rule but

can, with the proper attention to fitting, be adapted to the desired near-vision to suit the individual. Frequently we request the patient to measure with a ruler the actual near-distance he prefers and then we can easily fit the bifocal to that distance. It is true that in many cases two pairs of glasses or the trifocal are needed to accomplish a variability of working distance. We are frequently asked why someone does not invent a glass that will adjust so that the patient may select different distances as he chooses. The answer is, of course, that such a lens has been invented and is now in use, we call them binoculars or opera glasses, but the necessary focusing device is so bulky and expensive that for both mechanical and economic reasons they are unsatisfactory for constant use such as we give our every-day glasses. Previous to the common usage of television, movies, airplanes, automobiles, bridge games, business machines and other modern inventions, the use of glasses, particularly bifocals, was simple. However, with the added strain from the above and the variable distances at which they are seen, we now find many complicating factors which can only be solved by understanding tolerance or occasionally by more than one pair of glasses. Each problem has its own answer in the making of glasses, and we will have answers with this flexible mechanism to each and every new one. One of the most recent problems is, the tragedy of cataracts in some of our top atomic scientists and we have to offer them proper thicknesses of lead glass to filter out the deadly radioactive rays. You x-ray men already know and have been using that material long before atomic fission.

The ophthalmologist has been using the ophthalmoscope since Charles Babbage invented it in 1847. To you non-medical people it is the instrument we use to look inside of the eye. The use of this instru-

ment was taken up by Helmholtz in 1851 and developed by him and others along about this time. Now it is an integral part of the examination by the ophthalmologist and a few of the better class optometrists. It is remarkable that this instrument has been considered to be the sole property of the eye man and is not generally used by the rest of the profession. This is incorrect, for it should be a part of the armamentarium of every physician, for with it many diagnoses are made that cannot otherwise be made. We all know that each diagnosis we make correctly gives us much personal satisfaction and improves our standing with our patients. The use of the instrument is not difficult to learn and needs no special post-graduate study. I have in mind one of my fellow practitioners who held the idea that he should not even own one but after a few diagnoses of medical conditions with the ophthalmoscope, which had been totally missed without it, he took up the use of the instrument and routinely looked into each patient's eyes. He learned to recognize the normal that way and when something different turned up he asked about it. Now he is very proficient with the instrument and seldom misses. We eye men in our community have preached this and now, I believe, we have a very high percentage of general men using the ophthalmoscope, and we have a higher class of medicine because of it. Just what can be seen? The outstanding diseases are diabetes, vascular disease, kidney insufficiency, inflammations of the retina and choroid, cataract, detachment of the retina, uveitis and so on down the line of diseases with eye manifestations. I would say that two minutes with each patient with the ophthalmoscope will make you a far better doctor, and without doubt it will impress your patients with the feeling that they are employing a modern up-to-date physician.

Crossed eyes are a problem that needs discussion in this lecture. For years, cer-

tainly as long as any of us here has lived, ophthalmologists have known the mysteries of the constantly crossed eye or the tropias and the transient crossing or the phorias, and yet a turn about the shopping district of any medium-sized town will find one or more of these tragic conditions. The problem is not so much in the visual category as it is in the cosmetic or comfort field. They are easily and safely repaired but they still exist because of ignorance. It is to be remembered that if vision is to be conserved, the correction of the squint must be done before the age of five and better around the age of three. An "old-wives-tale" says that they will outgrow it but that is not true, and the sad part of it is that by the time they have had the chance to outgrow it one eye has lost its vision permanently as is usually the case. While ophthalmology has its share of "pocket-book" surgeons, most of us recognize the cases that will make spontaneous recovery and we treat these in such a way that no risk is entailed to the visual acuity. The transient cross, or phorias, is usually treated non-surgically by the application of exercise and/or prism additions to the regular eye glasses. Almost universally comfort can be gained by these measures.

The mention of exercise in a discussion of eyes always brings on a series of sly smiles and an unspoken thought that there is one that the speaker will have to sidestep but not this time. The book, "Vision Without Glasses", is familiar to many of you and has in it much food for thought. The entire book is based on the exercise principle and will work nicely in the mildly astigmatic and farsighted people, but fails completely in nearsighted ones. I have used the ideas of this work to a large extent in advising my people on the ways of achieving eye comfort, but the main objection, in relying completely on exercise, is that it requires considerable time each day and must be followed routinely if success is to

be attained. Very few people have the time or the inclination to follow such a course of exercise even when they are able to discard glasses. The cosmetic sacrifice with glasses is so little with the present-day frames that few people are willing to continue the exercises indefinitely.

Nervous disorders almost universally involve some of the visual functions and impair them according to the severity of the disease. It is well known that brain tumors, abscesses, multiple sclerosis and such severe diseases of the nervous system have their expression in part in the eyes but we shall not go into them. Here I am trying to interest the ladies as well as the doctors. It is the eye in the so-called nervous or tension states that will receive attention here. The proper or healthy nervous state is impossible to define for it varies in each individual. The effect of that state on the eyes is also variable with each individual. Therefore, we shall proceed with the premise that eyes are bothered in one way or another in varying degrees of severity, and examine this nervousness to see just what it is and how it is effective. To understand nervous tension we must remember that it is first collected and then expressed. Therefore, we must have a receiving mechanism which we call the sensory nerves, a sending mechanism which we call motor nerves, and an association center, which we know less well but is called by the neurophysiologists the internuncial pool. The above three factors are the primary experience factors but, being human and the proud possessors of a memory, we must add the discharge from this factor into the nerve-pool. With this addition then, we have the full complement of factors to build up the disease we know as nervousness or tension-state. I should note here that we eye men do not have sole interest in this affair, we don't by any manner or means, for this applies equally to broken bones or high blood pressure or any disease

affecting the human body. Here is how it works. Let us take a case of ordinary chronic conjunctivitis or so-called "pink eye". We know it to be a harmless sort of thing that is of more nuisance value than of actual harm. However, analyzing it, there is some pain registered in the nerve-pool, vision is cloudy at times, due to secretion, and this is registered in the pool. The motor output is impaired and this is registered. Now comes the real nervousness-producing factor. This patient remembers someone who lost his vision due to an infection of the eyes. Of course, he doesn't know that the infection was a different one, so the memory pours into the pool a fear of blindness-sensation. Then to add the only other requirements for an attack of nerves, the patient calls on his busy and overworked doctor who sees only another case of a simple disease and prescribes a "drop" to use every two hours with a short word that it is an infection, and without further ado the patient is dismissed to make room for the next case. Who wouldn't have nerves? That pool is filled to overflowing and proceeds to discharge itself in all directions like a Georgia thunderstorm. Why not as doctors bring down the emotional level before it discharges? This is easy in most cases, and can be accomplished by a reassuring few words with the patient that the disease is a simple one and that it is more of a nuisance than a danger. We used to frown on this sort of thing and call it playing up to a neurasthenic, but the modern doctor takes the word of the physiologist and uses every known means to keep the emotional level under the overflow point.

Granting that we have seen our patient and made a careful history and examination of the eyes, we can now with the above technic of psychic control proceed to the proper care of an eye disease. It is not my intent to teach you in this short time the proper

treatment for each and every eye disease, but I would emphasize to you some of the newer medications and some of the pitfalls of treatment. Penicillin is, of course, one of the most notorious of the later medications offered us by the research people and needs special handling by the eye men. First let me emphasize that it is one of the finest eye medications, but has proven itself to be a bad actor when applied locally to the eye. It is to be remembered that, while it is rapidly curing such things as conjunctivitis, styes, corneal ulcers and other such routine external eye diseases, it is also seemingly by special election forming a sensitivity to the drug, which allergy extends to the entire body and precludes the use of this valuable medication in the event of the killing diseases such as pneumonia, lung abscess, brain abscess, kidney infections and numerous other serious diseases. Therefore, because of its peculiar tendency to sensitize when used topically in the eye penicillin is not to be recommended except when it is the only medication that will save vision. Fortunately, on the heels of this observation we are now given two new antibiotics which have a more limited use elsewhere in the body and do not have the tendency to allergize the system. These are aureomycin and bacitracin. I have been using the above two products for several months and find that they not only replace penicillin, but are better medications. Aureomycin has the disadvantage of being inactivated by heat but refrigeration in the ordinary ice-box solves this problem. Bacitracin is stable and I have found it most effective for corneal infections, such as ulcers, and as an antiseptic following trauma. Penicillin intramuscularly is still used freely in the cases of abscesses and carbuncles of the lids and other deep orbital infections. It is known that penicillin does not reach the intraocular structures to an efficient concen-

tration and therefore is not to be depended upon in intraocular infections.

Atropine is probably, next to penicillin, one of the most abused eye medications. It is a drug that technically cannot be used except after careful ophthalmic diagnosis, but in every area in which I have practiced it has been used by the general practitioner indiscriminately for any red or injured eye. In the first place, it is a definitely dangerous drug in the eyes of people over forty and must not be used except where withholding it will endanger the vision more than an attack of glaucoma. In serious cases the few hours between the general practitioner and a competent ophthalmologist seldom makes enough difference to risk guessing at its need. The less important factor is that it actually is required in very few cases and its use, when not needed, can only produce a dilatation of the pupil and a paralysis of accommodation which will embarrass vision long beyond the actual existence of the disease for which given. Frequently I see cases of conjunctivitis that have been atropinized by the thoughtless family physician, which are cured by the antibiotics in a day or two. These people look with much disfavor on their family doctor because of the week or ten days of embarrassment from the atropine. I have only seen one acute attack of glaucoma brought on with careless use of atropine, but I am sure that much personal and economic inconvenience was caused as well as a surgical procedure which I sincerely believe was solely due to the drug. Temporary dilatation can be achieved by the use of homatropine or cocaine and either of these can be controlled, if needed, with miotics. These drugs are only effective twenty-four to forty-eight hours. Homatropine is not a medication used only for refraction. Frequently I use it for a day or two preceding the use of atropine.

One could hardly talk this long on ophthalmology without paying proper respect to the surgical end of the profession. Let me say here that I belong to the conservative school of thought and am a firm believer that the best ophthalmologist is a better medical man than he is a surgeon. I do considerable surgery and, in general, I think do a fairly good job of it. I also see many cases that have been operated on by other doctors and it is my feeling that I have never seen an eye post-surgically that even resembles the efficiency of a normal eye. The premise on which I work is that a surgical eye is only that much better than a blind eye. Incidentally, that premise is not bad when applied to all surgery, certainly if God had wanted what we produce He would have made us that way. The books and journals are full of ways to avoid surgery and we should all try to follow these teachings.

As I have indicated previously, my "pet" subject is "Chemical Burns of the Eye." I bring it in here for I have been leaving the ladies sort of on the side line. In a non-industrial area it is the housewife who is most often subjected to burns of the eyes from chemicals. Let us tabulate them: ammonia, bleaching solutions and powders, cleaning fluids, weed and bug killers, hair bleach and dyes, sulphur dioxide from old refrigerators and many more. I am consultant to several manufacturing chemical plants and you would be duly alarmed at the various concoctions they are inventing every day to complicate your lives and injure you if you fail to follow the directions on the labels. Chemical burns are simple if you wash the eye at once with copious amounts of ordinary tap water. Then go at once to your ophthalmologist where he will, under control of the biomicroscope, remove mechanically all of the chemical that remains in the eye. In the event it is absolutely

necessary there is no reason why even a general practitioner cannot do this, in a way, pending a long trip to the eye man. With the prevalence of chemicals today it behooves every doctor to familiarize himself with this simple treatment. To you non-medical people, use water and lots of it. Chemicals in the human eye cannot be neutralized, so don't waste precious time trying it.

In the case of serious accidents to the eye the best treatment cannot be given except when you are prepared to proceed with such operative measures as are indicated. Therefore, it is a common-sense conclusion that in the home or away from the operating room you should only determine that a serious injury has taken place, bandage the eye with no medication, and proceed at once to the ophthalmologist with care that no undue strain or further injury takes place. It is not the mark of a coward or a poor doctor to make only the diagnosis of serious injury and refer the case to one who is properly equipped materially and medically to handle any emergency.

Having just passed through the drive made by the National Cancer Society, we can well add in this lecture a word about malignancy of the eyes. Fortunately, they are relatively rare but still we see them. Probably the most common is the basal-cell carcinoma of the lids. These are very simple with early diagnosis, for they are highly susceptible to the deep x-ray therapy and will fairly melt away after one treatment. I have, however, in my collection one case of neglected basal-cell carcinoma which directly caused the loss of life of the patient. The glioma of childhood is diagnosed by the yellow reflex (like a cat's eye) and apparent loss of vision if the child is old enough. These are also rare but must be diagnosed early and the eye removed without delay. The little Chicago baby of newspaper fame a few years ago had that type

of tumor. The malignant melanoma of the adult is the most deadly of eye malignancies and almost routinely results in death because of its early blood-stream metastasis. Other malignancies are even more rare. Recently I removed an eye affected with an epitheloid carcinoma, which has only been reported a few times. The little old lady was 91 but is still living and well five months later, and most proud of her new and comfortable plastic eye.

Blindness from whatever cause, and glaucoma is now the captain, is a tragedy to be avoided at all costs and only constant study will prevent it. It is almost inconceivable to any of us here that we can lose our eyes but it is happening daily. There are a few rules about the blind that we should all remember. There is, of course, a horrible readjustment period for each of them, in general six months for one eye and from one to three years for both eyes. We cannot help feeling great sympathy for them, and yet probably the very worst thing that can happen to a blind individual is to have people offer them the crude condolence of a person that knows nothing of what they are experiencing. Self-pity is living death to them and is to be avoided.

The blind individual offers a problem to the medical profession which has not and cannot be solved satisfactorily. It is to be noted by all of us that here is a source of much criticism offered by various and sundry individuals and organizations. There is no more tragic situation that can befall an active individual than the loss of both eyes. The newspapers and other news dispensing media have seemingly grasped this problem as one that deserves front page space and one that must, by their standards, be played up to the last ounce of tragic and gory detail. In this manner much misinformation is foisted onto the public and problems of blindness are added to, rather than helped, by such undue publicity. The

one organization which is trying to cope with the problem of blindness and the releasing of proper and accurate information, is the National Society for the Prevention of Blindness. This society is directed by a very competent medical man and for that reason one can rely upon the information coming out under that society's name. I recently attended the annual conference of the society in New York, and I was much impressed by the material given and, being a member of one of the committees, I know that no end of work is done on special problems before the assembled information is released to the public.

I do not intend to convey the idea that we are pampering our blind, for that is not true. The readjustment period for the totally blind extends over a period of several months during which it is necessary for them not only to accommodate their minds to a completely new way of living, but during which they must also learn many new things; the most difficult is the manner in which they are to move about independently. The white cane is the insignia of the blind and merits our respect and aid far beyond the call of our own duties and obligations. It is not unusual, and it should not be, to see traffic of a busy city come to an abrupt halt while a white cane taps its way across a busy thoroughfare. It is interesting to watch the drivers, in such a traffic tie-up place, for on their faces is the glow of a deed well done, and should you ever have the opportunity to be a part of such a situation, do not hesitate to do so. It is the mark of the lady or gentleman to help. A few moments of time spent allowing a blind person to hold your arm while he crosses a street is time well spent. The blind prefer to hold your arm and are nervous when you try to hold theirs.

Another means of help for these unfortunate people is the "seeing-eye" dog. These

dogs are excellent help when both the dog and master have learned the proper association, but here help from a stranger is not always the acceptable thing for the blind. We must always remember that a little extra care is needed in helping these people. First, we must inquire if help is desired and frequently it is not, but if it is accepted, then we must carry the responsibility to a point where the dog again takes over his duties. The dogs are trained to relinquish their responsibility in the presence of a seeing person. Don't relinquish yours until the dog is again on the job.

Allergies of the eyes are becoming more and more frequent and for good reason. In the non-medical field of activity cosmetics are offering probably more allergic problems than any other. During the war this was particularly true, due to the use of inferior products to replace those unavailable for one reason or another. The main offenders are powder and nail-polish, and let me hurry to add that I do not object to their use, but cases we do see and we must help them promptly and efficiently. Testing for the special allergen takes too much time and, in my experience, I find it better to withdraw all cosmetics, including a complete cleaning of the dressing table, and storing away all of the preparations in it in a tightly-wrapped container and placing it in storage so that no further contact will be made with it. The eyes will then clear rapidly with palliative medication and at this point one-by-one the same old cosmetics may be purchased and tried until the offending one is found. Probably still a better way is to purchase the non-allergic cosmetics and continue using them. I am told by the good authority of my patients and by my wife that they are very nice and are in many cases superior to the standard lines.

Finally, I arrive at the major goal of this lecture. You all know by now that I

have seriously tried to include here a large number of important things and that each and every one of them was designed to either prevent or treat eye conditions that could lead to blindness or to alleviate the tragedy of that condition. Please permit me to leave you with a responsible challenge. I charge each of you with responsibility to keep in mind this lecture and that charge will only be fulfilled when you have met your Creator and can honestly say that you have done your utmost to prevent or alleviate one or more cases of blindness. The need is obvious. Let us fill it.

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Atlanta

Mr. Vice President, Mr. President, distinguished guests, ladies and gentlemen: A centennial in the life of a man, a city or an organization carries many implications. In man the attainment of 100 years is exceptional, and we wonder at his capacity for survival. In a city it is the result of progressive effort and the sound growth of its citizenry. In an organization it is the culmination of sound principles, unselfish service, and faith of its membership.

The Medical Association of Georgia through its 100 years of history has advanced because of its sound and steadfast service to the State and its people. It has been made up of stalwart and solid men, who gave medical service and who adhered to medical ethics.

In its 100 years of existence it has chosen each year a leader because of his merit and his capacity. Each of these 100 men gave to the Association measures and methods for the improvement of medical service to

the people of this State. Therefore, with the passing of the years, when we come to the occasion of the 100th President, it too is an exceptional time—a time for summing up, a time for glancing backward, and a time for looking forward.

Our present President, Edgar Hill Greene, has the distinction of being the hundredth man in this hundredth year. In glancing backward over the political history of this State we find that his maternal kinsman in the years around 1877 represented the State most ably. I refer to the brilliant Senator from Georgia, the Honorable Benjamin Harvey Hill, statesman, scholar and southern gentleman.

In the service of the State, Edgar Hill Greene held membership in the National Guard, in which he served long and unselfishly. When war came in 1917 he entered for the duration in the Medical Corps of the U. S. Army, being a member of Base Hospital No. 43, with service in France. In World War II he was a representative official in the Selective Service System at the state level. In latter years of the war he was Chairman of the Medical Office for Procurement and Assignment for the Southeastern Department.

For years he has ever been interested in forwarding progressive medical legislation, and has given of his time to this end. This year his administration has successfully accomplished the passage of the premarital physical examination, which has been put upon the statutes of this State.

He has long advocated increased medical service for the State, and particularly the encouragement and the establishment of rural, county and community hospitals.

At this centennial we are honoring, too, that group of men who have held membership in the Medical Association of Georgia for fifty years. It is fitting that we honor them—they who have labored in the profession through the hot sun of summer and

through the icy wind of winter—who have administered to and comforted our people in their hours of darkness.

In that fifty years medicine progressed with greater brilliance than in all previous eras. They saw the principles of Pasteur produce aseptic surgery; they witnessed Koch's discovery of the tubercle bacillus; they heard first of the isolation of the spirocheta pallida and of Ehrlich's perfection of salvarsan for its eradication. They have lived to use and to apply the antibiotics in those infections heretofore uncontrolled.

We are seeing before us the sinister clouds of socialized medicine gathering on the medical horizon, but I firmly believe that the greatest bulwark we have against this menace lies in the record of the character and the work done for the people by this group of unselfish men.

And now, Mr. President, as you have had the unique distinction and privilege of serving for the past year as the centenary presiding officer, it gives me great pleasure to present to you, on behalf of the Medical Association of Georgia, the President's Gold Key for a meritorious administration well done.

HEALTHGRAMS

One of the most significant recent advances of the improved tuberculosis case-finding procedure is the program to give a routine chest film to all hospital admissions. As people enter hospitals for reasons of illness, a higher incidence of tuberculosis than that found in the general population may be expected. The U. S. Public Health Service reports this to be twice as much. Approximately 10 per cent of the general population are annually admitted to public hospitals. This large, easily accessible group offers an ideal opportunity for the discovery of unsuspected tuberculosis. S. A. Holling, M.D., Canad. J. Pub. Health, Jan., 1949.

* * *

There are many features in a good tuberculosis control program, but all of them are based on the fundamental principle that tuberculosis is contagious, and that the patient who has the germs in his sputum, or who shows x-ray evidence of progressive disease of the lungs such that the sputum is likely to become positive, must be isolated from his family and from the community in a tuberculosis hospital or sanatorium where strict bed-rest, good diet, and special surgical procedures in selected cases, can be provided to stop the advance of the disease and render him non-infective. Miriam E. Brailey, M. D., Baltimore Health News, Nov., 1948.

DIAGNOSTIC AND THERAPEUTIC ERRORS

*A Study of the Causes of Error in
500 Clinical and Necropsy Records*

WALTER M. BARTLETT, M.D.*

Atlanta

Since Cabot's⁴ classic paper on diagnostic pitfalls in 1912, the medical profession has, from time to time, taken stock of itself from the standpoint of statistical accuracy. Abrahams¹ states that the problem demands almost superhuman courage to select material from our own humiliating experiences. It is only human to develop amblyopia and deafness in respect to one's own deficiencies. In this paper, there is no intention of gloating over the unfortunate mistakes that are made and neither is it implied that any physician or group is personally infallible. The object of this report is to attempt to evaluate the effectiveness of modern diagnosis and therapy as practiced in up-to-date hospitals, with the hope of arriving at some of the more common causes of error and suggesting ways by which they may be avoided.

A unique opportunity to make this study presented itself in 1946 when it was found possible to review the clinical records and autopsy protocols from fifteen veterans hospitals in the five southeastern states. The object of this review was to assist in the evaluation of professional services in these hospitals, to stimulate interest in increasing the autopsy percentage, and to improve the accuracy and completeness of diagnostic studies and the more adequate maintenance

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of clinical records. During a two-year period, through recurring reports of this study, it was possible to increase the autopsy percentage in our hospitals from 20 per cent in 1945 to 62 per cent in 1947. Professional services likewise showed a parallel improvement. Accuracy in diagnosis, effectiveness in therapy, and improvement in the clinical records have shown a consistent and gratifying improvement.

Erroneous Diagnosis

George Blumer² stresses the importance of observation, not only with the eyes but with the other senses. He states that a diagnostic chain is no stronger than its weakest link. A carelessly taken history, an insufficient physical examination, the absence of some important laboratory test, a lack of knowledge of the diagnostic possibilities, or poor reasoning, may, any of them, lead to erroneous diagnosis. Cowley⁶ suggests that the doctor should stand the diagnostic possibilities up like a set of ten-pins and then proceed to knock them down, one by one, until only one is left.

Hirschboeck⁷ emphasizes the strides made in diagnostic accuracy between Cabot's 1912 report of 3000 cases and the statistical study of Swartout¹¹ of 1805 cases in 1934. The great improvement in accuracy of diagnosis from 50 to 89.5 per cent was attributed to better clinical records and the aid of the newer laboratory procedures and instrumental accessories. This is borne out by the fact that the greatest improvement in diagnosis occurred in conditions in which technical assistance is of the greatest value, particularly x-ray, electrocardiograms, blood chemistry, clinical microscopy, bacteriology, and fluoroscopy. Cleland⁵, in 1942, in a series of 2500 cases, found the clinical diagnosis correct in 67.8 per cent, partly correct in 12.4 per cent, wrong in 14.6 per cent, and in 5.2 per cent the cause of death was not known at autopsy.

Method of Study

Each hospital submitted complete clinical records with autopsy protocols for study. These records were carefully scrutinized with the object of discovering any cause for error in either diagnosis or treatment. As these errors were detected they were classified into various categories. Errors in diagnosis were listed as given in Table 1; errors in treatment as listed in Table 2. These errors are given in the order in which they arose in the study of the series. Multiple errors, both in diagnosis and therapy, were frequently made in the same case. It is of interest that more errors were made in treatment than in diagnosis. The major diagnosis was correctly made in 80 per cent of the cases clinically. In 253 cases no diagnostic error was detectable; that is, in 50.6 per cent of the series. In 195 cases no therapeutic error was made; that is, in 39 per cent of the series.

It can be seen by a study of Table 3 that the most commonly missed diagnoses are chronic pericarditis, pulmonary and renal infarction, cerebral aneurysm, miliary tuberculosis, rheumatic heart disease, cerebral and mesenteric thrombosis, cor pulmonale, chronic pyelonephritis, and subacute bacterial endocarditis. The more rare diagnoses that are easily missed because of their infrequency are amyloidosis, ruptured aneurysm, hemorrhage from esophageal ulcer, lung abscess, idiopathic rupture of the stomach, and disseminated blastomycosis. It is surprising though to find so many cases of tuberculosis and coronary thrombosis still being missed clinically. It is also a little discouraging to find 50 per cent of the perforated gastric ulcers not diagnosed in this series of cases, although only four occurred.

If one attempts to determine just where the diagnostic errors outlined in Table 1 take place in the hospital, one arrives at

some figures as follows:

- Diagnostic errors based on faulty records or history 41.
- Poor clinical judgment or inadequate examination 217.
- Inadequate utilization of laboratory procedures 225.
- Insufficient use of radiologic technic 18.
- Lack of adequate electrocardiography 57.
- Insufficient use of bronchoscopy, urography and gastroscopy 38.

From these figures one can deduce that there are about as many errors in diagnosis that depend upon the doctor in charge as there are those that depend upon the use of laboratory procedures or precise diagnostic techniques. Perhaps the lack of sufficient utilization of suitable laboratory procedures including x-ray and special technics are accountable for more actual errors than those attributable to poor clinical judgment. There are many factors involved in these errors, such as lack of adequate personnel in the laboratory, too large a number of patients in charge of a single physician, inadequate clinical records, a shortage of highly-trained technicians in the laboratory, and, at times, an actual lack of equipment for the performance of some of the finer diagnostic studies necessary for definitive diagnosis. Often one is forced to the conclusion that fundamentally the reason for the majority of diagnostic errors is failure on the part of the physician in charge to think of all the diagnostic possibilities. Therefore, he does not perform all of the necessary procedures. This is easily corrected in teaching hospitals where these factors in diagnosis are constantly being brought to the attention of the physician in charge by interns, residents, visiting physicians and the consulting staff. Bedside teaching and ward rounds usually result in suggestions from the group studying the patient as to the desirability of performing additional diagnostic studies in each case where the entire gamut of diagnostic routines have not already been performed. Additional functional tests are then usually recommended that give further impetus to

the therapeutic regimen. When a single physician has charge of 75 to 100 patients, however, and does not have the advantage of constant stimulation from visiting specialists and consultants, he cannot establish first-class service in either diagnostic or therapeutic categories. These are a few of the factors that enter into a finding of poor clinical judgment involved in 36.4 per cent of the diagnostic errors: faulty records and history in 6.9 per cent; inadequate use of laboratory aids in 37.7 per cent; and insufficient use of radiologic, electrocardiographic, urographic or bronchoscopic technics.

Therapeutic failure most often arises from errors of omission, in 82 per cent of the 687 errors analyzed in Table 2. Of almost equal importance is the failure of the patient to be hospitalized early enough in the course of his disease. Errors of commission and lack of careful dietary treatment account for the remaining 18 per cent of therapeutic errors. Errors of commission include failure to test the patient's sensitivity to cocaine, failure to recognize an acute surgical emergency and the use of anticoagulant therapy when not strictly indicated. Errors of omission include failure to utilize x-ray therapy in malignancy or collapse therapy in tuberculosis.

Discussion

Cabot thought that a good many classic time-honored mistakes in diagnosis were familiar to all experienced physicians because we make them time and again. He considered there were other common errors made because of the inaccessibility of certain common diseases to diagnostic approach. He also considered that there were less well-known pitfalls in diagnosis which should be called to our attention. Burnford³ thought that missed diagnoses should not be regarded as errors, because many diseases and structural defects may occur

without any disturbance in function or without producing any symptoms. He gave as an example the many congenital defects found only at autopsy and the frequency with which arthritis, gallbladder disease, coronary disease and arteriosclerosis are found when no symptoms were elicited during life.

Jameson⁵ states that not all mistakes are buried but too often remain locked within the memories of those most intimately concerned. He adds that diagnostic errors must always be costly in one way or another. Stoll¹⁰ stresses the importance of diagnosis in relation to injuries, particularly because people from the earliest times have had a great desire to obtain something for nothing. Neal⁹ states that failure to utilize available and dependable procedures, and, only too often, an inadequate or misinterpreted history, leads to diagnostic error. Failure to take sufficient care, according to Abrahams, will cause most errors. Warped judgment, bad manners, laziness, tactlessness, carelessness, and mismanagement will explain many others. Failure to observe the ordinary things is a gross error; lack of familiarity with a rare disease may well be pardonable. Abrahams states further that there are some diseases and lesions with such anomalous and contradictory signs that in their diagnosis it would be wrong to be right. In determining where errors have been made in this present series of cases, failure to observe ordinary care and utilize ordinary clinical judgment has been the criteria utilized.

A boy, aged 10 years, was admitted to the Massachusetts General Hospital while I was a house officer there, with evidence of a chronic lung infection affecting both lungs. He had been ill for several weeks with a moderate cough and fever and was brought from Florida to Boston as a puzzling case for diagnosis. X-ray films of the chest showed evidence of a moderate infiltration throughout the bases of both lungs, more evident on the right. He was carefully examined, was seen daily by visiting physicians and consultants, but no one was able to make a diagnosis. Over a period of several weeks all sorts of special examinations were made, including sputum examinations, cultures, blood tests, and additional x-ray examinations, but they failed

to shed any light on the cause of the chronic lung disease. At this time a newly-arrived house officer, in order to become familiar with the ward, started systematically to examine all of the patients. While he was examining this boy in the prone position, with fairly heavy percussion over the posterior chest, the patient suddenly was seized with a forceful paroxysm of coughing. He coughed up a large mass of mucoid material which was caught on a towel by the examiner. Examination of this mass revealed a pistachio nut that the boy had accidentally inhaled some four months before, while on vacation in Florida. He made a prompt recovery after this effective examination. Failure to obtain an adequate history and failure to consider all of the diagnostic possibilities, failure to perform bronchoscopy or utilize other precise methods of diagnosis, were responsible for this patient's prolonged hospitalization.

Burnford concluded that the correct diagnosis is most apt to be reached by means of an orderly method of examination, intelligent use of ancillary methods of investigation, avoidance of bias, and the application of general principles derived from your own experience.

Prevention of Errors in Diagnosis and Treatment

What can we do to prevent errors in diagnosis and treatment? The following axioms have been drawn from a study of this series of cases:

1. Use more functional tests in following the course of disease.
2. See that patients benefit from modern bacteriologic advances.
3. Utilize special diagnostic technics more fully.
4. Check and re-check physical findings daily and weekly.
5. Accept eagerly every opportunity for consultation.
6. Urge early hospitalization in heart disease, malignancy and tuberculosis.
7. Always direct therapy towards the underlying disease.
8. Follow through in the treatment of all chronic diseases.
9. Use careful biochemical control in all replacement therapy.
10. Always establish biochemical control in using special diets.
11. Be on the alert to treat thromboembolic disease promptly.
12. Include in the clinical record the diagnosis of every complicating factor, and establish periodic functional evaluation studies that will make the clinical record "live!"

POST-GRADUATE SEMINAR

Emory University School of Medicine, in co-operation with the Post-Graduate Committee of the Medical Association of Georgia, announces a seminar to be held in Atlanta Oct. 10-14. The course of instruction has been planned for the general practitioner of medicine. Those who wish to participate in this seminar should send their applications to Dr. R. H. Oppenheimer, 36 Butler St., S. E., Atlanta.

TABLE 1
DIAGNOSTIC ERRORS

<i>Cause of Diagnostic Error</i>	<i>No. of Cases</i>	<i>Per cent of Total</i>
1. Failure to follow up abnormal findings in x-ray by repeated bronchoscopy and bronchography.....	13	2.6
2. Attention of clinician focussed on nervous system to the neglect of significant chest disease.....	25	5.0
3. Sinus tachycardia confused with ventricular tachycardia for which quinidine was prescribed.....	1	0.2
4. Failure to recognize septic infarction and isolate causative organism.....	1	0.2
5. Failure to perform bronchoscopy prior to bronchography.....	2	1.0
6. Failure to definitely investigate the cause of hemoptysis.....	7	1.4
7. Failure to repeat abnormal electrocardiogram or to recognize other signs of pericarditis.....	41	8.2
8. Failure to inform patient of biopsy findings leading to repeated hospitalization and operation.....	3	0.6
9. Failure to obtain operative or biopsy information from previous hospital where patient had been operated upon.....	3	0.6
10. Failure to establish bacteriologic cause in pneumonia.....	9	1.8
11. Failure to definitely investigate etiologic factor in ulcerative colitis or establish rational therapy.....	11	2.2
12. Inadequate attention directed towards renal function during hospitalization.....	107	21.4
13. Lack of careful evaluation of cardiac signs in aortic stenosis.....	5	1.0
14. Failure to establish early treatment in hepato-renal syndrome, or to consider its seriousness until uremia developed.....	32	6.4
15. Failure to determine the nature of severe anemia by adequate hematologic study.....	12	2.4
16. Failure to recognize poisoning from self-administered carbolic acid.....	1	0.2
17. Inadequate bacteriologic investigation of pyelonephritis.....	32	6.4
18. Inadequate blood chemistry performed for adequate treatment or diagnosis of hypoglycemic shock.....	2	0.4
19. Failure to adequately investigate genito-urinary tract early in the course of malignancy.....	8	1.6
20. Failure to recognize signs of ruptured cerebral aneurysm.....	2	0.4
21. Failure to utilize precise diagnostic methods in localization of cerebral tumor.....	7	1.4
22. Assumption of metastasis in postoperative malignancy led to failure to investigate gall-bladder disease.....	2	0.4
23. Failure to properly evaluate extent of arteriosclerotic process in a patient long hospitalized for mental symptoms.....	29	5.8
24. Failure to secure adequate information concerning previous hospitalization.....	3	0.6
25. Failure to perform laryngoscopy in a patient with long-standing chronic laryngitis.....	3	0.6
26. Inadequate study of gastro-intestinal tract in the presence of severe anemia.....	29	5.8
27. Failure to recognize an acute surgical emergency.....	11	2.2
28. Failure to make repeated careful physical examinations in search of evidence of malignancy.....	11	2.2
29. Failure to investigate genito-urinary tract for obstruction.....	28	5.6
30. Failure to take specimens for toxicologic examination in patients with signs of intoxication.....	5	1.0
31. Failure to consider acute pancreatitis in the differential diagnosis of acute abdominal pain.....	3	0.6
32. Failure to perform tuberculin test in the presence of fever of undetermined origin.....	17	3.4
33. Failure to adequately examine the chest by fluoroscopy for aneurysm in case diagnosed as bronchial asthma.....	2	0.4
34. Failure to determine cause of acute fulminating hepatitis with fever and nephrotic syndrome.....	9	1.8
35. Failure to carefully search for tuberculous lesions elsewhere in far-advanced pulmonary disease.....	41	8.2
36. Mistaken diagnosis of myxedema made in case of malignancy.....	1	0.2
37. Failure to appreciate the frequency of thrombosis in cases of malignancy.....	12	2.4
38. Failure to recognize signs and symptoms of subacute bacterial endocarditis in rheumatic heart disease.....	2	0.4
39. Failure to take blood cultures in fever of undetermined origin.....	5	1.0
40. Failure to culture spinal fluid or inject in guinea pig for diagnosis of tuberculous meningitis.....	3	0.6
41. Inability to obtain satisfactory history.....	4	0.8
42. Pulmonary infarction mistaken for acute coronary occlusion.....	6	1.2
43. Cor pulmonale in chronic emphysema confused with acute coronary occlusion.....	2	0.4
44. Severe heart disease not recognized in chronic pulmonary tuberculosis.....	13	2.6
45. Failure to recognize pulmonary infarction.....	13	2.6
46. Cerebral hemorrhage syndrome thought to be due to hypertensive encephalopathy or meningo-vascular lues.....	4	0.8
47. Clinician satisfied with number of unsubstantiated diagnoses instead of considering possibility of all signs and symptoms being produced by a single malignant lesion.....	5	1.0
48. Cardiac tamponade confused with acute myocardial infarction.....	2	0.4
49. Failure to repeat abnormal electrocardiogram in case of progressive anginal syndrome.....	3	0.6
50. Failure to recognize mental depression with suicidal trend.....	1	0.2
51. Pulmonary edema thought to be acute coronary occlusion.....	1	0.2
52. Symptoms of digitalis toxicity masking those produced by peptic ulcer, followed by death from perforation.....	1	0.2
53. Failure to evaluate degree of coronary artery disease in the presence of bronchiogenic carcinoma.....	1	0.2

TABLE 2
THERAPEUTIC ERRORS

<i>Cause of Therapeutic Error</i>	<i>No. of Cases</i>	<i>Per cent of Total</i>
1. Inadequate therapy for syphilis of the cardiovascular system	17	3.4
2. Inadequate therapy for congestive heart failure	54	10.8
3. Use of quinidine in heart failure due to myocardial infarction without previous or simultaneous digitalization	1	0.2
4. Failure to utilize antibiotic medication in septic infarction or to treat bronchopleural fistula	2	0.4
5. Use of aerosol in debilitated patient produced lipoid pneumonia	5	1.0
6. Subacute progressive nephritis case discharged from hospital while still active, with insufficient instruction given sulfa drugs on outside, returned to hospital in acute uremia with polyarteritis nodosa	1	0.2
7. Three operations, two unnecessary, because of failure to inform patient of previous biopsy findings	1	0.2
8. Inadequate preventive precautions against development of decubitus ulcers and failure to treat same effectively	24	4.8
9. Failure to utilize emergency measures for the reduction of extreme hypertension	20	4.0
10. Failure to utilize strict dietary measures for the reduction of blood pressure or relief of nitrogen retention	72	14.4
11. Failure to attack pneumonia with vigorous antibiotic medication	8	1.6
12. Inadequate and ineffective care of patient with chronic ulcerative colitis followed by ill-advised surgery	2	0.4
13. Failure of adequate post-hospitalization follow-up in cases of myocardial infarction	21	4.2
14. Failure to direct treatment toward the amelioration of the patient's underlying disease, in other words, limitation of treatment to symptomatic therapy	141	28.2
15. Failure to establish any form of treatment for anemia or pulmonary edema	17	3.4
16. Inadequate follow-up of patients treated for congestive heart failure; admitted with digitalis poisoning	6	1.2
17. Failure to take adequate precautions in preparation and administration of blood transfusion	2	0.4
18. Inadequate antibiotic therapy for recurrent pyelonephritis	23	4.6
19. Inadequate treatment for hypoglycemic shock	2	0.4
20. Inadequate follow-up of diabetic patient after hospitalization	6	1.2
21. Hospitalized too late in the course of disease for effective treatment	114	22.8
22. Failure to effect proper treatment in case of recognized bronchiectasis of long-standing	7	1.4
23. Failure to treat patient with repeated thromboses with anticoagulant therapy or ligation	36	7.2
24. Spinal puncture repeated in presence of increased intracranial pressure	1	0.2
25. Pneumoperitoneum not utilized in bilateral tuberculosis	7	1.4
26. Inadequate attention paid to the nutritional condition of the patient	15	3.0
27. No treatment recommended for brain tumor recognized 8 years before death	1	0.2
28. Failure to remove pericardial effusion when indicated	3	0.6
29. Failure to utilize x-ray therapy in inoperable carcinoma	5	1.0
30. Inappropriate transfer of seriously ill patient from one hospital to another	11	2.2
31. Failure to utilize collapse therapy in unilateral tuberculosis	7	1.4
32. Failure to prescribe proper dietary treatment in cirrhosis of the liver to avoid introducing infection through frequent repeated paracentesis	11	2.2
33. Malaria therapy used to treat cerebral hemorrhage on mistaken diagnosis of meningo-vascular syphilis	1	0.2
34. Use of anticoagulant therapy when not clearly indicated	2	0.4
35. Failure to use transfusions or other effective treatment in patients suffering with hemorrhage	16	3.2
36. Excessive therapy due to misconception that oliguria can be overcome by massive hydration without biochemical control	9	1.8
37. Administration of thyroid extract in case of malignancy not properly diagnosed	1	0.2
38. Inadequate or ineffective use of antibiotics in pneumococcic septicemia	3	0.6
39. Refusal of patient to submit to operation until too late in the course of the disease	3	0.6
40. Inadequate precautions taken to avoid postoperative embolism and thrombosis	3	0.6
41. Unavoidable homologous serum reaction	1	0.2
42. Acute perforation operated upon too late or not recognized	3	0.6
43. Medulla punctured producing subtentorial hemorrhage while performing cisternal puncture	1	0.2
44. Failure to test patient's sensitivity to cocaine	1	0.2

TABLE 3

Disease	No. of Cases Correctly Diagnosed	Per cent of Total	No. of Cases Missed	Per cent of Total
Malignancy, carcinoma, sarcoma, myeloma	105	21.0	21	4.2
Coronary thrombosis	51	10.2	19	3.8
Chronic nephritis	27	5.4	10	2.0
Brain tumor	5	1.0	0	0
Cerebral thrombosis	3	0.6	3	0.6
Miliary tuberculosis	8	1.6	10	2.0
Dissecting aneurysm	1	0.2	0	0
Cerebral hemorrhage	19	3.8	2	0.4
Leukemia, acute and chronic	8	1.6	0	0
Fractured skull, encephalo-malacia traumatic	6	1.2	0	0
Cholecystitis, acute	0	0	1	0.2
Pulmonary tuberculosis	58	11.6	2	0.4
Meningoencephalitis	3	1.6	0	0
Pulmonary infarction	1	0.2	7	1.4
Pericarditis, chronic	0	0	10	2.0
Pneumonia	6	1.2	2	0.4
Ulcerative colitis	3	0.6	0	0
Renal infarction	0	0	3	0.6
Rheumatic heart disease	4	0.8	5	1.0
Mesenteric thrombosis	2	0.4	2	0.4
Transfusion reaction, lower nephron nephrosis	3	0.6	1	0.2
Cerebral aneurysm	0	0	2	0.4
Peritonitis, acute	6	1.2	4	0.8
Hepatic cirrhosis	20	4.0	3	0.6
Cor pulmonale	2	0.4	2	0.4
Cerebral edema	5	1.0	0	0
Acute poisoning	3	0.6	2	0.4
Multiple sclerosis	2	0.4	0	0
Pyelonephritis, chronic	5	1.0	5	1.0
Primary hemolytic anemia	1	0.2	0	0
Ruptured aneurysm	0	0	1	0.2
Asphyxia (suicide)	1	0.2	0	0
Septicemia	1	0.2	0	0
Amyloidosis	0	0	2	0.4
Subacute bacterial endocarditis	2	0.4	2	0.4
Brain abscess	2	0.4	0	0
Amyotrophic lateral sclerosis	2	0.4	0	0
Agranulocytosis	1	0.2	0	0
Blastomycosis, disseminated	1	0.2	1	0.2
Postoperative hemorrhage	2	0.4	1	0.2
Intestinal obstruction	1	0.2	0	0
Hemorrhage from esophageal ulcer	0	0	1	0.2
Lung abscess	0	0	1	0.2
Perforated gastric ulcer	1	0.2	1	0.2
Bleeding peptic ulcer	1	0.2	0	0
Ruptured liver	1	0.2	0	0
Acute hemorrhagic pancreatitis	1	0.2	0	0

Summary

1. Clinical and necropsy records from fifteen veterans hospitals in the five southeastern states have been reviewed. In 500 cases, 1284 diagnostic and therapeutic errors were encountered. More errors were made in treatment than in diagnosis. Although the major diagnosis was correct in 80 per cent of the cases, diagnostic errors were detected in 49.4 per cent while ther-

apeutic errors were made in 61 per cent of the series.

2. The most commonly missed diagnoses were (1) chronic pericarditis; (2) pulmonary or renal infarction; (3) cerebral aneurysm; (4) miliary tuberculosis; (5) rheumatic heart disease; (6) cerebral or mesenteric thrombosis; (7) cor pulmonale; (8) chronic pyelonephritis; and (9) subacute bacterial endocarditis.

3. The causes of diagnostic error were (1) inadequate utilization of laboratory procedures; (2) poor clinical judgment; (3) inadequate examination; (4) faulty history or records; (5) insufficient use of radiologic techniques; (6) lack of use of serial electrocardiography; and (7) insufficient use of precise diagnostic methods such as bronchoscopy, urography, and gastroscopy.

4. Therapeutic failures were most often attributed to (1) the fact that patients were hospitalized too late in the course of their disease for effective treatment; (2) inadequate therapy for congestive heart failure; (3) failure to utilize strict dietary measures; (4) the use of symptomatic therapy instead of directing treatment towards relief of the underlying disease; (5) inappropriate transfer of a seriously ill patient from one hospital to another; (6) failure to use transfusions in the treatment of hemorrhage; (7) inadequate antibiotic medication in recurrent pyelonephritis; (8) failure to treat patient with repeated thromboses with anticoagulant therapy or ligation; and (9) inadequate treatment of cardiovascular syphilis.

5. In general, (1) failure to take sufficient care; (2) poor judgment; (3) tactlessness; (4) mismanagement; (5) failure to obtain an adequate history; (6) failure to consider all of the diagnostic possibilities; and (7) insufficient use of modern precise diagnostic methods, explain most errors.

Methods of avoiding errors through good supervision and medical education with emphasis on the common causes of error are advanced.

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MYXEDEMA INCORRECTLY DIAGNOSED AS NUTRITIONAL ANEMIA

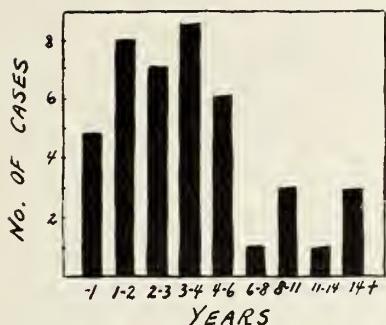
ARTHUR M. KNIGHT, JR., M.D.

Waycross

Adult myxedema was first described as a clinical entity by Gull in 1874. Since 1883 it has been described in text-books of physical diagnosis and medicine. Yet, despite widespread familiarity with the syndrome and extensive employment of basal metabolism determinations, several years often elapse between the time of development of the first symptoms and the time the correct diagnosis is made. Chart No. 1 illustrates¹ the time elapsing between the appearance of symptoms reported to the local physician and the time diagnosis was made in one of the country's largest thyroid clinics.

We shall present evidence that the case under discussion today had existed for at least ten years before being diagnosed, in spite of ten hospital admissions and study by six physicians. This case is presented, with the encouragement of Dr. J. H. Means,² for the purpose of re-emphasizing the existence of myxedema, and with the fervent hope that it will help to teach "... the lesson which apparently the profession badly needs, that myxedema is curable and the

CHART NO. I



MYXEDEMA: TIME ELAPSING BEFORE DIAGNOSIS WAS MADE

(Means, J. H., and Lerman, J.: Arch. Int. Med. 55:1, 1935.)

CHART I
Myxedema: time elapsing before diagnosis.

Table I

SUMMARY OF HOSPITAL ADMISSIONS MRS. W.A.C.			
DATE	R.B.C.	HBC %	GRAMS (est.) MCH C.I. DIAGNOSIS
3-11-38	2.33	56	9.52 40.9 1.6 Pellagra
<i>"Drags out each word". "Speaks as if drugged". "Appears demented". "Tired, dragged-out feeling". "Leverre, chronic constipation". "Smooth tongue". "Dry skin". "Scaly dermatitis on wrists".</i>			
4-11-41	2.86	58	9.86 34 1.4 Anemia, Pellagra
8-8-42	No blood work.		Anæmia
3-14-43	2.76	53	9.01 30 1.01 Anemia
7-6-43	No blood work.		
12-25-44	3.50	58	9.86 28 0.89 Anemia, Secondary
2-16-45	3.06	50	8.50 26 0.83 Anemia, Pernicious
<i>No gastric analysis or marrow study.</i>			
1-16-47	2.69	57	9.69 36 1.10 Hemorrhoids Anæmia, Secondary
10-20-47	2.94	40	6.80 23 0.72 Anæmia, nutritional
11-1-47	4.94	96	16.00 (Results questionable) Myxedema
3-15-49	3.00	54	9.20 31 0.88 Myxedema; possible Pernicious Anæmia
MEAN	2.89	53	9.05 31 1.04

FIGURE I
Table I: Summary of hospital admissions.

SYMPTOMATOLOGY OF MYXEDEMA

(77 Cases: 64 Women, 13 Men)

Lerman, J., and Means, J. H., New Eng. J. Med. 208:1135, 1933.

SYMPTOM	CASES	PER CENT	SYMPTOM	PER CENT
Weakness	99	100	Peripheral Edema	55
Dry Skin	97	99	Hoarseness or aphonia	52
Course Skin	97	99	Anorexia	45
Lethargy	91	95	Nervousness	35
Slow Speech	91	95	Menorrhagia	32
Edematous Eyelids	90	94	Palpitation	31
Sensation of Cold	89	93	Diarrhea	30
Decreased Sweating	89	93	Poor heart sounds	30
Cold Skin	83	88	Precordial pain	25
Thick Tongue	82	86	Poor vision	24
Edema of Face	79	84	Fundus oculi changes	20
Coarse Hair	76	82	Dysmenorrheas	18
Cardiac Enlargement(X-ray)	68	74	Loss of weight	13
Pallor of Skin	67	74	Atrophic tongue	12
Memory Impairment	66	73	Emotional instability	11
Constipation	61	67	Choking sensation	9
Gain in Weight	59	64	Fineness of hair	9
Loss of Hair	57	63	Cyanosis	7
Hair of Lips	57	63	Dysphagia	3
Dyspnea	55	61	(*) of all preclimacteric women)	

Of the above list of 39 symptoms, the 7 which Mrs. W.A.C. did not have are marked with a minus (-).

Before her climacteric she suffered from dysmenorrheas.

She had a hysterectomy at age 41 for menorrhagia.

FIGURE II
Symptomatology of myxedema.

diagnosis is easy, if they are conscious of its existence and consider it in differential diagnosis, when it should be considered.¹²

Myxedema is defined³ as "a disease due to marked hypofunction of the thyroid gland, and marked by dropsy-like swelling,

FIGURE III
Photograph of patient made in November, 1947.FIGURE IV
Photograph of feet and legs in November, 1947.

Table II

LABORATORY FINDINGS 11-2-47 MRS. W.A.C.

RBC	HBC % of 17	GRAMS	B.M.R.	SERUM CHOLESTEROL	E.F.G.	NEUTRACE
2.89	63	9.05	+35 -29	510 540	slow rate low voltage flat P small QRS flat T	Below 98°F

FIGURE V
Table II: Laboratory findings on November 2, 1947.

especially of the face and hands, smallness of the thyroid gland, slowing of the pulse rate, dryness and wrinkling of the skin, fall-

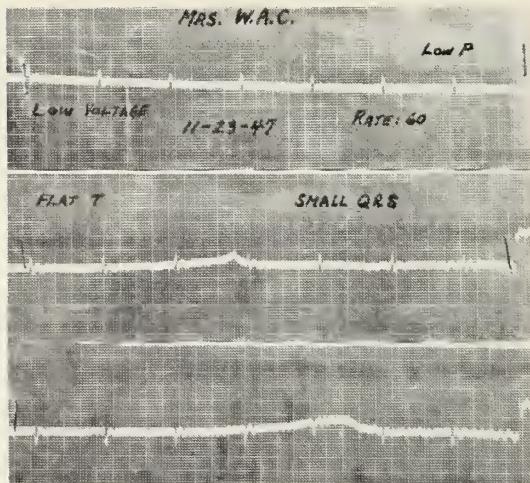


FIGURE VI
Electrocardiogram made on November 23, 1947.

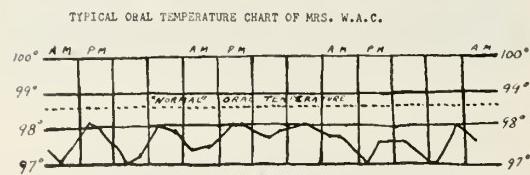


FIGURE VII
Typical oral temperature Chart.

Table III

LABORATORY FINDINGS 3-15-49 MRS. W.A.C.

F.B.C.	HBG % of 17	GRAMS	B.M.F.	CHOLESTEROL	E.K.G.
3.00	54	9.2	-50 -55	500	slow rate low voltage small P Low T Inverted T in chest leads

ORAL TEMP.	CREST FILM	GASTRIC ANALYSIS
96.4°F	T.D. Heart 12.5 cm. T.C. Chest 26.0 cm.	Post-histamine; 0°C Free 14°C Combined

STERNAL MARROW: essentially normal
not megaloblastic

FIGURE VIII
Laboratory findings on March 15, 1949.

ing of the hair, dulling of mental activity, sluggishness of movement, and retardation of the rate of basal metabolism."

Case History

Mrs. W. A. C., a white widow, aged 70, first came under our care on October 5, 1947. She lived alone, ate a very inadequate diet, and was badly in need of medical attention and nursing care when first seen. Her chief complaint was "anemia". She stated that she had "literally lived on transfusions" for the past ten years. Other complaints included (1) weakness, (2) intolerance to cold, (3) swelling of the ankles, (4) severe constipation, (5) low backache, (6) pains in the knees and ankles in cold weather, (7) attacks of retrosternal pain, (8) deafness, (9) dryness and scaling of the skin, (10) falling hair, and (11) hoarseness of the voice.

She was unable to make a definite statement about when her illness had begun but said that she had been having a steady downhill course for at least ten years and that she had had numerous hospital admissions for transfusions during the past ten years. Her hospital admissions are summarized in Table I. She had been bedridden for several weeks because of weak-



FIGURE IX
Photograph of patient made on March 15, 1949.



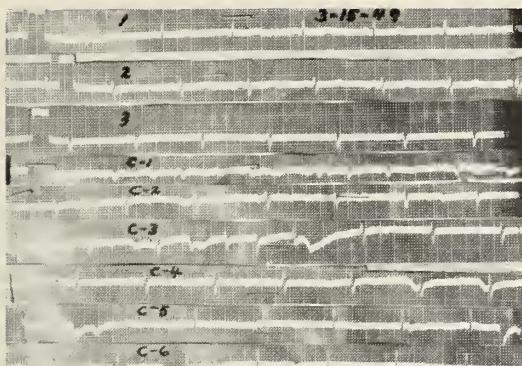
FIGURE X
Photograph of feet made on March 15, 1949.

ness, exertional dyspnea, ankle edema and joint pains.

She had undergone an appendectomy at age 35. At age 42 she began to suffer from severe menometrorrhagia which lasted for about two years until a panhysterectomy was done. Before the onset of the hypermenorrhea, her menstrual history had been normal except for painful menstruation.

Her family history was interesting in that two of her sons had undergone surgical treatment for toxic goiter. She knew of no other instances of thyroid disease in her family.

System review revealed that she had been becoming progressively more deaf for the past two years. The back of her neck became "stiff and sore" after reading or crocheting, and she was often "sore between the



MRS. W. A. C. 3-15-49
RATE 60 LOW VOLTAGE LOW P
SMALL QRS T LOW TO INVERTED

FIGURE XI
Electrocardiogram made on March 15, 1949.

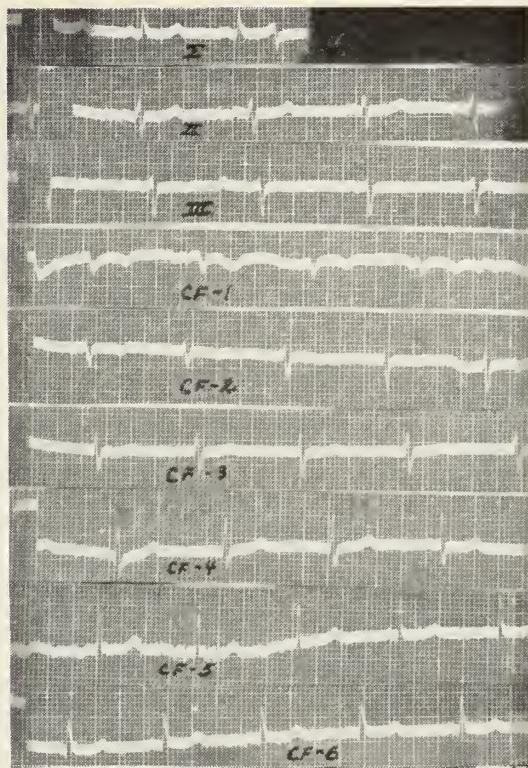
Table IV

Date	BMR	Cholesterol	Hemoglobin (grams)
3/15/49	-50, -55	500	9.2
3/29/49	-37, -27		
4/12/49	-22, -27		
4/15/49		273	
4/19/49			10.0
4/25/49	-15, -18		

FIGURE XII
Table IV: Laboratory findings after one month of intensive thyroid treatment.

shoulders". For several years she had been bothered by "rheumatism". She found it very hard to keep comfortably warm. Her neck would become cold if she wore a low-necked dress. For several years she had found it necessary even in summer to wear a wrap when wearing short sleeves or when the wind was blowing. Her ankles had begun to swell to a marked degree in the past few months. The skin under her breasts, on her trunk, on her feet and legs had been scaling off for the past few years. She was very nervous all the time, finding it impossible to relax and very difficult to sleep at night. Her appetite was poor.

Physical examination revealed a 70-year-old white woman who presented a striking appearance and who spoke slowly and deliberately in a hoarse, harsh, low-pitched, thick-tongued, rasping and unmusical voice. She was not dyspneic. The general nutritional state was fair. The temperature was 96.4 F (month), the pulse 60, the respiratory rate 12, and the blood pressure 110/70. The skin was yellowish in color and felt quite dry everywhere, though it had an oily appearance. It was puffy, especially around the eyes. There was marked scaling, especially on the trunk and legs. The hair was dry, stiff, and coarse. Much of it had fallen out of the scalp. The eyebrows were sparse and several of the eyelashes were missing. There was no axillary hair and very little pubic hair. Her face appeared apathetic and somewhat "Mongolian" because of the ptosis, edema of the eyelids, and narrow palpebral fissures. The optic fundi revealed a moderate degree of arteriosclerosis of the arterioles; there were no exudates. She was moderately deaf in both ears, with air conduction better than bone conduction. The conjunctivae, lips, tongue, buccal mucosa, and nail beds were very pale. The teeth were missing. The lingual papillae were atrophic. No thyroid gland substance could be felt. The chest was not remarkable except for the heart. The left border of cardiac dullness was 11.0 cm. from the midsternal line in VI and the right border 5.0 cm. in IV. There were grade two, blowing,



MRS. W. A. C. 4-29-49. RATE 70 GREATER VOLTAGE T UPRIGHT EXCEPT IN III, CF-1&2 HIGHER T LARGER QRS.

FIGURE XIII
Electrocardiogram after one month of intensive treatment.

systolic murmurs at the apex and at the aortic area. The heart sounds were of poor quality. The lungs were clear and resonant throughout. The abdomen was not remarkable. There was stiffness and pain on motion of the lower back. The vaginal mucosa was pale and atrophic. The entire uterus was surgically absent. There was three plus pitting edema of the ankles. Neither posterior tibial pulse could be felt, but both dorsalis pedis pulses were palpable. The toe nails were dry, thickened, and yellow. Neurologic findings were physiological.

The laboratory findings are summarized in Table II. The available laboratory facilities did not permit more extensive work, such as determination of the hematocrit or gastric analysis. The patient would not permit a sternal puncture or bone marrow biopsy at this time. Another difficulty was the patient's economic status, which prevented her from staying in the hospital more than two or three days at a time. As Dr. Means states⁴, "The diagnosis should be made, if not simply by listening to the voice, at least by merely looking at the patient. The facies . . . is utterly characteristic. The presence of this facies together with a reasonable number of the other cardinal manifestations . . . and a basal metabolic rate of minus 30 or below, clinches the diagnosis."

We prescribed thyroid for the patient, with the intention of beginning with small doses and gradually increasing until we found her optimum dose which would relieve the manifestations of the disease without producing untoward effects. But the patient stopped keeping appointments and soon disappeared from sight. We next saw her 15 months later, on March 15, 1949. It was learned from her druggist that she had been taking 30 mg. enteric-coated thyroid "emplets". She had eventually increased her dose to three of these a day (equivalent to 0.15 gm. of U.S.P. thyroid extract), but

she had been extremely irregular and careless about taking the medication, as indicated by the fact that she had refilled her prescription (for 100 U.S.P. 30 mg. tablets) only five times in 15 months. It is likely also that the enteric-coated tablets were not well absorbed.

There was, of course, very little evidence of objective improvement at that time. The laboratory findings at that time are summarized in Table III. She was still quite anemic; the cholesterol level was still elevated; the basal metabolic rate was still greatly depressed. There was no free hydrochloric acid in the gastric juice aspirated 45 minutes after the injection of histamine (0.1 mg. of the base per kilogram). A sternal marrow biopsy was done and revealed an essentially normal marrow, which was reported by the pathologist as not being megaloblastic.

To be more positive about the results, we personally administered each day, beginning on March 21, 1949, 15 grains (1.0 Gm.) of ferrous sulfate and 2 grains (120 mg.) of U.S.P. thyroid extract. Laboratory findings following this treatment are summarized in Table IV.

The chest film revealed a heart of normal size. The electrocardiogram showed minimal improvement. But, subjectively, she was greatly improved. She was stronger. Her skin was not so dry as before and no longer sealed off. She was more alert, less lethargic. No longer did she complain of being intolerant to cold. Her speech had improved greatly. Though she was still hoarse, her voice was higher-pitched, more musical, and more fluent. Her tongue did not seem as thick as before. There was no edema of the ankles. She stated that her appetite had improved. She had no more palpitation and no angina pectoris. The deafness did not seem so striking. Her heart sounds were of much better quality.

It is my sincere wish that by bringing this one case to your attention, we may help some other case of myxedema to come to an earlier diagnosis.

Summary

- Attention has been called to the long delay which often occurs between the appearance of symptoms and the correct diagnosis of myxedema.

- Evidence has been presented that the case under discussion had existed for at least ten years before correct diagnosis was made.

- A classical case of myxedema has been presented, which, despite ten hospital admissions and the services of six physicians, had remained undiagnosed.

- Failure of the patient to ingest thyroid extract in sufficient quantity resulted in absence of objective evidence of improvement after fifteen months.

- Active, vigorous treatment for one month resulted in definite improvement, the results of which have been described.

- The fervent hope has been expressed

that cases of myxedema will come to an earlier diagnosis.

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THE CLINICAL MANIFESTATIONS OF INFECTIOUS MONONUCLEOSIS

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The purpose of this presentation is to consider briefly the most commonly encountered manifestations of infectious mononucleosis, and to bring to your attention some of the more serious complications of this disease. Enough evidence has already been reported in the literature to show that we can no longer consider infectious mononucleosis as a uniformly benign self-limited disease, as it was regarded in 1889 by Pfeiffer¹ and as recently as 1930 by Glanzmann,² and 1944 by Contratto.³

Ten years ago Thomsen and Vimtrup⁴ reported six deaths in a series of 500 cases, four of which were uncomplicated, and the death in each instance was due to a central respiratory paralysis. The autopsies in this group were apparently the first to be reported in the literature. Jersild,⁵ in 1942, performed an autopsy on a patient who had angina with sepsis, but who died of myocarditis attributed to infectious mononucleosis. Rupture of the spleen proved fatal in Ziegler's⁶ patient and was fatal in four of seven cases of rupture of the spleen reported by Custer and Smith⁷ in 1946. Rickers⁸ et al described the autopsy findings in two cases of Guillain-Barre syndrome associated with infectious mononucleosis.

Custer and Smith⁹, in their magnificent

paper published last year on the pathology of infectious mononucleosis, showed beyond any doubt that there are as many lesions of infectious mononucleosis as there are organs and tissues in the body, although the degree of involvement of each varies markedly from case to case. This accounts for the wide range of clinical signs and symptoms listed in the various series of cases reported in the literature. Custer and Smith, in their article, selected Read and Helwig's¹⁰ analysis of 300 Army cases to illustrate this, and to show that virtually all the clinical features may be explained on the basis of demonstrable pathologic changes. They also noted that most of the clinical manifestations of the disease serve to confuse rather than to clarify the diagnosis.

Infectious mononucleosis is an acute infectious disease of unknown etiology, although Isaacs¹¹ reported a group of 206 patients in 1948, 53 of whom had some symptoms which persisted for from three months to at least four years or longer.

Most of the acute cases seen in this country fall into one of two clinical groups, the most common type being the anginose or pharyngeal variety, usually seen in young adults in sporadic form. The lymphatic or Pfeiffer type is most often seen in children in sporadic and epidemic forms. Tidy¹² defines two additional groups of clinical manifestations: namely, infectious mononucleosis in young males with a longer but milder febrile stage and comparatively slight glandular swelling and long febrile types with late and slight enlargement of glands.

The anginose or pharyngeal variety is usually insidious in onset and may be characterized by fever, two to three weeks of malaise, headache, increasing sore throat, chilliness alternating with excessive warmth, and slight cervical glandular enlargement. After seven to ten days a definite pharyngitis or tonsillitis will supervene, and often

the exudate present will suggest diphtheria. (It was not until Glanzmann's monograph in 1930 that monocytic angina was associated with infectious mononucleosis, and this differentiation from diphtheria was a clinical advance of importance). Ulceration may accompany the true membrane seen at this stage. Edema of the neck and tenderness of the enlarged cervical glands are common, but suppuration is rare. In spite of the great discomfort and anxiety caused by the pharyngitis, these patients do not become severely toxic. After three to ten days the membrane will separate, after which all symptoms rapidly clear. It has been thought by some observers that the angina may be a complication associated with the leukopenia which is often present initially, before the mononucleosis develops. In about half of these cases the spleen is felt and the liver is palpably enlarged in about ten per cent of them. For several days or longer the fever may be 102 to 105 degrees Fahrenheit. Many unusual findings may be noted and will simply confuse the picture until the correct diagnosis is established. Some of these findings are purpura, a variety of skin rashes, jaundice, meningismus or true meningitis, splenic rupture, or combinations of the above.

The lymphatic or Pfeiffer's glandular fever in children is manifested by rapid and visible swelling of the cervical glands and a short duration. It is seen in sporadic and epidemic forms. This type is occasionally encountered in adults. There is usually slight sore throat, fever, and enlarged cervical glands, which may be unilateral or bilateral. The pharyngitis is mild and without exudate as a rule. Generalized glandular enlargement may be present. Nausea and vomiting may also appear and the picture may simulate acute appendicitis. Recovery takes place in several weeks.

In 1922 Longcope,¹³ in his article, included a sporadic case of the febrile form

resembling typhoid or influenza, and which type Tidy mentions in his most recent paper as having occurred in epidemic form in England in 1930, and which was characterized by its severity and long duration and by the high proportion of adults involved. Glandular enlargement develops late and is usually mild. There may be an initial polynucleosis, followed by a normal blood picture and passing on to leukopenia. Angina is uncommon, and a maculopapular rash may appear from the fourth to the tenth day. In other cases purpura and scarlatiniform eruption have been reported.

Custer and Smith emphasized the fact that hyperplasia of lymphoid tissue is the major and most consistent pathologic change in infectious mononucleosis; therefore, one is not surprised to find enlargement of the lymph nodes and spleen as the most common physical findings. These authors have shown that "the tense, swollen spleen of infectious mononucleosis is peculiarly liable to rupture because the capsule and trabeculae are more or less diluted and sometimes dissolved by lymphocytic infiltration."

Bone marrow studies have shown normal erythropoiesis in most cases, which accounts for the rarity of anemia in infectious mononucleosis. Granulocyte components are either normal or increased in number.

The study of the peripheral blood picture usually reveals normal hemoglobin, platelets, and red blood count in infectious mononucleosis. As Tidy states, "So rapidly may alterations take place in the types of white blood cells and their number and so great are the differences in different cases that no single blood picture is exclusively typical of the disease. But most characteristic during the active stages is the presence simultaneously of various types of mononuclear cells, particularly with a high incidence of monocytes, an appearance rarely seen in any other disorders of the blood."

All the blood forming tissues are affected, myeloid, monocytic, (or reticuloendothelial), and lymphoid. The myeloid system is first involved, and in some cases an initial polynucleosis of ten to twenty thousand is not infrequent. The polynucleosis is always transient and initial, and never develops during the attack. The mononuclear rise may overlap the fall of polyps; leukopenia may supervene before the mononucleosis appears, and is usually due to a granulopenia. Some of the lymphocytes are abnormal, and show a foamy or deeply basophilic cytoplasm which often contains vacuoles.

There have been many varied and bizarre neurologic manifestations reported since Longcope's first suspicion of encephalitis in 1922. The first clear descriptions of neurologic features were given by Epstein and Dameshek¹⁴ in 1931 and by Johansen¹⁵ in 1931. Recovery from neurologic manifestations is usually rapid. Tidy points out that a comatose and paralyzed patient with an extensor-plantar response may be apparently normal mentally and physically in three days. Severe headache is the commonest symptom in neurologic cases, and is often associated with blurring of vision, vertigo, and occasional nuchal rigidity. The brain (encephalitis), meninges, cord, cranial nerves and peripheral nerves may be affected, either separately or in combinations or sequence. Recently Dolgopol and Husson¹⁶ reported a fatal case of infectious mononucleosis with neurologic complications. The early manifestation was diplopia, which developed before the lymphadenopathy and splenomegaly. The later findings were those of a bulbar lesion with respiratory paralysis and lower paraplegia.

Jaundice has been seen during the past twelve years as part of the picture of infectious mononucleosis, and may occur at the outset, when it is usually severe or may develop later in the disease when it is usu-

ally mild. Tidy, in 1937, saw many cases of jaundice in St. Thomas Hospital¹⁷ in patients with infectious mononucleosis.

Various cardiac manifestations may also be present. Arrhythmias and tachycardia are known to occur. Myocarditis was a stated cause of death in Jersild's case. Evans and Graybiel¹⁸ described electrocardiographic changes in four cases suggesting pericardial involvement, with gradual return to normal during convalescence. I have had one similar case which has not been reported. Logue and Hanson¹⁹ observed first degree block with prolonged P-R interval.

It is probable that the abdominal pain and tenderness sometimes seen in infectious mononucleosis are due to rapid enlargement of the abdominal lymph nodes, spleen, and liver.

It is not generally appreciated that pus and red blood cells are occasionally found in infectious mononucleosis, along with albuminuria, which may be found in any febrile illness. Casts have not been reported.

The syndrome of chronic infectious mononucleosis as reported by Isaacs, included early fatigue, exhaustion, aching of the legs, weakness, depression, afternoon elevation of temperature (up to 101F.), moderate splenomegaly, low blood pressure, low blood sugar, often low specific gravity of the urine, and the presence of infectious mononucleosis cells in the blood. It is interesting that three of this group developed characteristics of lymphoblastoma and two showed the features of Banti's congestive splenomegaly.

In conclusion it must be kept in mind that infectious mononucleosis may simulate many unrelated disease conditions. It should always be thought of in unexplained fever, prolonged sore throat, generalized lymphadenopathy, abdominal pain, various

bizarre neurologic pictures, jaundice, purpuric or maculopapular rash, and in an unexpectedly positive blood Wassermann test. The transitory nature of most attacks of infectious mononucleosis will usually keep one from making an incorrect diagnosis in the final analysis; rarely infectious mononucleosis may be misdiagnosed in the early stages of certain leukemias. Serial studies of the circulating leukocyte and careful exclusion of all other possibilities over a reasonable period of time combined with adequate serologic studies will usually lead one to the correct diagnosis.

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THE CHEMOTHERAPY OF LEUKEMIA

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The purpose of this discussion is to outline for you briefly the work that is being done in the development of various chemical agents for the treatment of leukemia, a disease which to this present moment still remains a uniformly fatal disease.

In recent years there has been a noticeable acceleration of clinical research in the field of chemotherapy of the neoplastic diseases. This effort has been given new impetus by the discovery and development of

radioactive substances. The present status of this therapy is of interest to the general practitioner of medicine, for it is upon him that falls the burden of advising distraught parents and relatives as to what they may expect from the new "miracle drugs" so-called by the lay press and often dramatically if inaccurately portrayed in this literary medium.

At the present time there are four major chemical agents which seem to offer promise in the treatment of leukemia. These are: (1) radioactive isotopes, principally phosphorus; (2) the nitrogen mustards; (3) urethane (ethyl carbamate); and (4) the folic acid antagonists, principally aminopterin (4 aminopteroyl-glutamic acid). The first three of these agents fall into the category of substances which have their effect directly on the malignant cell, while the last named is classified as an agent which by altering the metabolism of the host tends to destroy the neoplastic process or in some way ameliorate its effect.

The Nitrogen Mustards. Prior to and during World War II it became necessary to manufacture large quantities of mustard gas for military purposes. It was observed that workers exposed to systemic absorption of this substance developed certain toxic manifestations which were selective in their effect on the spleen, bone marrow, lymph nodes and thymus. The chemical effect was not unlike that exerted by x-ray.

In the fall of 1944 a group at the Memorial Hospital in New York began to use methyl-bis (Beta chloroethyl) amine HCl in the treatment of leukemia. Between 1944 and 1948 well over 100 patients were treated and the data tabulated. Craver reported 65 cases, 17 of which were acute leukemia, which did not respond to the drug. Thirty patients with chronic myeloid leukemia and 17 patients with chronic lymphatic leukemia exhibited reduction of the total white

blood count, reduction of the spleen and lymph nodes, and remission of subjective symptoms. It must be admitted that these remissions were of temporary nature and were comparable to those following x-ray therapy.

More recently Burchenal at the Sloan-Kettering Institute for Cancer Research reported on the use of 1:3 propane diamine N N N' N' tetrakis (2 chloroethyl) dihydrochloride (SK 136) which appeared to be more effective and less toxic than the first used preparation. When given in doses of 0.1 mg./kilo. daily for 4-6 doses, SK 136 caused less nausea. It seemed particularly effective in the treatment of chronic myeloid leukemia. Eleven of such cases treated with SK 136 showed a uniform fall in total white blood count. Nine of these exhibited a rise in hemoglobin with diminution of the abnormal forms of white cells. Nine cases showed regression in the size of the spleen; 10 cases showed marked subjective improvement.

The nitrogen mustards are administered intravenously, preferably through the tube of an already flowing clysis. The drug is prepared as a dry powder in sterile vials and must be diluted with sterile saline or distilled water and administered within a few minutes. The unused diluted drug must be discarded.

Radioactive Isotopes. Many different elements have been used in their radioactive forms; however, radioactive phosphorus is at present most popularly used because of its short half life of two weeks. Its Beta radiation has an extremely short penetration of 2-3 mm., which makes it acceptable in the treatment of blood dyscrasias. The drug seems to have a selective action on rapidly growing cells and is distributed uniformly throughout the hematopoietic system. It may be administered orally but is preferably given intravenously with an ini-

tial dosage of 1.3 millicuries repeated at bi-weekly intervals. One millicurie is that amount from which 37 million atoms disintegrate per second. This factor is determined at Oak Ridge and entered on the label of the container before it is shipped.

In leukemia the radioactive phosphorus is taken up rapidly by both the red blood cells and the white blood cells during the first 24 hours. After that the concentration in the red blood cells falls quickly, while the phosphorus is retained in the leukocytes.

The results obtained with radioactive phosphorus in the treatment of leukemia are at best equivocal. Shields Warren reported 81 cases of both myeloid and lymphatic types with only partial remission. In the *Journal of the American Medical Association* for March, 1948, Lawrence reported 129 cases of chronic myeloid leukemia. He describes his results as "the prolongation of comfortable life"; however, only 33 of these patients were living at the end of five years.

Urethane. In 1910 Warburg, a German scientist, discovered that if phenylurethane was added to sea water in which the eggs of the sea urchin were growing, cell mitosis stopped and cell development was inhibited. This significant fact was overlooked until 1933 when the English workers began to use urethane in the treatment of rat carcinoma. Observing that urethane produced a leukopenia in these animals it was suggested that the drug be used in the treatment of leukemia. In 1946 Haddow, Paterson, Thomas, and Watkinson reported in *Lancet* the results of their work on 32 cases of leukemia. They cited encouraging results and although their follow-ups were inadequate their encouragement led to the widespread use of urethane in this country.

There is no doubt that urethane will produce a prompt and usually pronounced drop

in the total leukocyte count with reduction in the number of immature forms. Regression of the spleen and lymph nodes occurs somewhat less promptly and there is almost uniform subjective improvement. The exact mechanism of the drug's action is not clearly understood. It is of interest that efforts to produce marrow changes in normal individuals with urethane have been unsuccessful.

Urethane has the advantage of being administered orally and of being relatively non-toxic. It may be given initially in doses of 1.3 grams three times daily in enteric coated tablets in solution with some suitable vehicle. The dosage is variable and must be adjusted to the rapidity of the leukocyte fall. Doses as high as 10-12 grams daily have been administered for several weeks. In some cases total doses of 20-30 grams have been sufficient to bring the leukocyte count within normal limits. The drug has a certain cumulative effect and further fall in leukocytes should be anticipated after its discontinuance. Penicillin may be useful if the total white count drops below safe levels. The toxic effects of urethane are limited almost entirely to nausea of a mild degree and some drowsiness. If vomiting supervenes the drug may be administered rectally in solution.

Urethane has been more useful in the treatment of chronic myelogenous leukemia. It is entirely non-effective in acute leukemia. It has been used with benefit in aleukemic leukemia with initial white blood counts as low as 1500/eu. mm. It may be used in conjunction with x-ray therapy.

The Folic Acid Antagonists. Some time ago efforts were directed toward the treatment of leukemia with certain of the folic acid derivatives, namely pteroyltriglutamic acid (teropterin) and pteroyldiglutamic acid (diopterin). It was observed that these substances produced an acceleration of the

leukemic process. It was then suggested that a substance antagonistic to folic acid would reverse this effect. Of several compounds 4 aminopteroxy glutamic acid (aminopterin) was found to be the most effective and least toxic. In the *New England Journal of Medicine*, June 3, 1948, Harber reported 16 cases of acute leukemia in children treated with aminopterin. Ten of the 16 showed marked improvement with evidence of remission. Additional information has since reached the literature with favorable comment.

Aminopterin is administered intramuscularly in doses of from 0.5 mg. to 1.0 mg. daily for 5-8 successive doses. Evidence of severe bone marrow depression with thrombopenia and anemia or toxic effects such as stomatitis may necessitate its discontinuance. The drug has been administered in the same syringe with liver extract in an effort to minimize the toxicity.

Aminopterin is not an innocuous drug but may be used with reasonable safety with careful observation. At present it offers more than any of the other three agents in the treatment of acute leukemia.

DISCUSSION OF PAPERS BY DR. BARTLETT, BY
DR. KNIGHT, BY DR. BLUMBERG AND
BY DR. BLALOCK

DR. CHARLES M. HUGULEY, JR. (Atlanta): It has been a pleasure to listen to these four papers, and the speakers are to be congratulated on their excellent presentations. There is not a great deal I can add, but I would like to emphasize certain points that have been made.

I think Dr. Bartlett has done us a great service in calling attention to our errors both in diagnosis and in therapy. It is only by conscientious attempts of this kind to determine causes of error that we individually and collectively learn to practice better medicine.

Dr. Knight has well illustrated that anemia is to be regarded as a symptom and not as a primary disease. We cannot attribute anemia to nutritional deficiency when it fails to respond to diet therapy. When such a diagnosis is disproved by failure to respond, then we must make a careful search for other causes of anemia. Dr. Knight is to be congratulated for having established such a difficult diagnosis and proving it by response to thyroid therapy.

Dr. Blumberg's paper on the manifestations of infectious mononucleosis is one of the best presentations of this subject that I have ever heard. The manifestations are indeed protean, and may affect any organ. The one constant finding is the presence in the blood of characteristically atypical lymphocytes in every case in which diligent search is made. When they are typical

you just simply can't miss them.

In regard to involvement of the spleen, I would like to say that of the fatal cases a considerable percentage have been the result of a ruptured spleen, usually ruptured from some slight trauma. I don't believe it is advisable to make a very vigorous attempt to palpate the spleen when this condition is suspected. Whether or not you palpate it is not of a great deal of help in differentiating from other conditions.

Dr. Blalock's paper was of particular interest to me because the major portion of my work has been in the chemotherapy of leukemia, lymphomas and other malignant conditions. In the Winship Clinic at Emory University we regard radioactive phosphorus as the treatment of choice for polycythemia vera, but we seldom use it for anything else. Nitrogen mustard is particularly useful in the treatment of generalized Hodgkin's disease. Best results have been obtained in our hands when it was used in combination with x-ray therapy. It is also a useful adjunct to x-ray therapy in the other lymphomas and occasionally in other malignant diseases such as metastatic bronchiogenic carcinoma. I do not believe it is a proposition of either nitrogen mustard or x-ray, but a matter of using both of them to obtain the best results for the patient.

Urethane has been an excellent treatment in chronic leukemia. It does not seem to offer much more than other means of therapy in the other leukemias. There is hope, however, that it will offer good symptomatic relief in many patients with multiple myeloma.

In the past nine months we have treated 20 patients with aminopterin. We have not seen a single true remission of leukemia with the use of this drug. By that I mean none of the patients improved to the extent that the diagnosis of leukemia could not be made. However, of those 20, five have shown a good response with a rise in the red count, a rise in the platelet count, a lowering of the white count, and a return of the differential to reasonably normal levels, say, up to 35 or 40 per cent segmented forms. In five there has been fair symptomatic improvement, although the hematologic improvement was not very striking, other than a fall in the white blood cell count.

In ten patients the response has been poor. Of these 20, eight were instances of acute leukemia in children. In three of those the response was very good, in three of them it was fair, and in the other two there was very little response.

For the present I think it is useful mainly in acute leukemia, particularly in children, and is the only drug at present available which is worth while using in this particular condition.

DR. W. E. STOREY (Columbus): In advance of this program I was requested by one of the speakers to discuss his paper because Dr. Sydenstricker's absence was anticipated at that time. Having received the manuscript and prepared a few remarks I would like, in deference to Dr. Knight, to make a few simple observations on the subject of myxedema. I regret that I cannot comment upon the other papers but I was not sent manuscripts and therefore I am not prepared.

A case of myxedema is, of course, always instructive. It is a disorder commonly overlooked, or confused with other conditions. In this instance, the patient was found to be anemic, and was suspected of nutritional deficiency. Actually, the anemia was not primary, nor was the nutritional state responsible. Such patients are also frequently suspected of having nephritis, and may indeed show a trace of albuminuria.

I believe the anemia which accompanies myxedema is most often of the hypochromic type due probably to the frequent association of achlorhydria and thus difficulty in absorption of dietary iron. However, it may be hyperchromic and megaloblastic, due to depression of marrow function along with depression of most other tissue functions. Such cases commonly present other symptoms which are not pertinent to the

present problem but which nonetheless show the varied picture of myxedema.

We are fortunate in having this case called to our attention, and I should like to emphasize that if a patient appears to be anemic or is suspected of being nephritic, but without evident cause, it is well to think of hypothyroidism.

When the general facies of the patient are so characteristic as in this case, metabolic tests and total serum cholesterol are always indicated.

DR. ALLEN H. BUNCE (Atlanta): We are very greatly indebted to these gentlemen for bringing these very excellent papers to our attention.

Dr. Bartlett's paper reemphasizes the importance of restudying our patients to detect diagnostic and therapeutic errors. There is nothing which will improve our diagnostic skill or our understanding better than following up and seeing what happens.

In the 1920's we reported a very short series from a small ward at the Grady Hospital, where we were able to get almost 100 per cent postmortem examinations. That small series helped us considerably. We are very greatly indebted to Dr. Bartlett.

In reference to Dr. Knight's very interesting report. I am very glad that he brought this to our attention. In 1925, at a meeting of the Southern Medical Association in Asheville, I reported a similar case, wherein the patient had had a diagnosis of anemia. I noticed that in eight of the ten patients of Dr. Knight's, one of the points in diagnosis was anemia. In other words, in eight different hospital admissions the patient was diagnosed as being anemic. The patient reported by us in 1925 showed that same thing.

One of the most important things in Dr. Knight's discussion, in my opinion, was his statement, "Look at the patient." So many of us don't look at the patient. We don't ask ourselves, "Why?" You will note in his case, and also in the case reported by us, that there was also a total absence of free hydrochloric acid in the stomach contents, which would lead one to suspect very strongly pernicious anemia.

Dr. Blumberg's excellent discussion of mononucleosis recalls to my mind the first case I saw. I hastened out to the Stock Yards, got some sheep's blood and proceeded with a heterophil antibody test. I was surprised that that was not mentioned either by Dr. Blumberg or Dr. Huguley. It may be that the present hematologists have become so expert in recognizing the abnormal white cells and lymphocytes in this disease that it is not necessary. I know in the '20's we were not quite sure of it.

Dr. Harold Bowcock showed some slides, and he was pretty sure that he could recognize and diagnose infectious mononucleosis from the characteristic appearance of the white blood cells. That was when I gave the first paper ever presented before this Association on infectious mononucleosis, in the '30's. This paper by Dr. Blumberg is the second such paper.

In reference to Dr. Blalock's paper, for those of us who have seen so many cases of leukemia go on to the end, I am very happy that more effort is being made to do something for these patients. I have been interested in that since about 1911. Dr. J. W. Landham and I reported a case of chronic myelogenous leukemia. A traveling salesman went ahead with his work for twelve years. We started studying him in 1919. Our experience with him seems to correspond with Dr. Blalock's experience. In other words, in chronic myelogenous leukemia the results are much better than in the acute cases.

Later on I reported 20 cases of acute lymphatic leukemia, all of whom very promptly died. They were not my patients, of course—most of them were patients for the pediatricians, although I had examined the blood.

There is one question I would like to ask Dr. Blalock in reference to his leukemia patients. I wonder if he

had very many severe reactions from transfusions. It may be that at the present time it has been perfected to such an extent that you don't get the reactions we had. We had some very severe reactions in patients with leukemia.

Taken all together, we have never had a better group of papers before this Association. I congratulate these four gentlemen.

DR. J. K. FANCHER (Atlanta): I would like to take a moment to discuss Dr. Knight's paper, not from the diagnostic standpoint which has been discussed, but from the treatment standpoint.

I am sure that if he had had sufficient time he would have mentioned the fact that these myxedema cases are very intolerant to large doses of thyroid. That is most important in these cases.

Dr. Knight also mentioned the fact that is quite characteristic of most of us in our practice—that these patients do not come back when asked to come. That can result in trouble. I remember one case at the Good Samaritan Clinic many years ago, when we started treatment and increased the dosage and told the patient to come back in a month. We did not see her again for over a year.

Some doctor called us up and said, "We have a patient of yours who is bleeding from every mucous membrane in her body." We looked up the record and found we had not seen the patient in a year. She had been given a small dose of thyroid and was told to increase it gradually, and to come back in a month. She was then taking 84 grains of thyroid daily, and had lost 100 pounds.

Gentlemen, if they don't come back, let's tell them: "If you don't come back on time, please stop your treatment." These patients should be under observation.

One case which was interesting to me was a boy of about one year of age with infantile myxedema, who was normalized under thyroid. He came back at the age of 16, perfectly normal. We made a complete checkup—blood chemistry, basal and physical. He was normal on one-half grain of thyroid per day. I made an effort over three months to get him off thyroid, but his hair fell out and he became sluggish. He was maintained on one-half grain.

As to Dr. Blalock's presentation on leukemia. I want to compliment him on his attitude of not being fatalistic. I cannot subscribe to the idea that a person who has leukemia is better off dead. I feel that someone, someday, is going to find a cure for leukemia. I admire him for his efforts.

He mentioned chemotherapy. In Philadelphia a few years ago there was presented some work on human refrigeration in leukemia. It was based on the treatment of cancer. Two cases of leukemia were treated by human refrigeration, with good results. I tried it on one case. It requires special apparatus, and although it is not chemotherapy I believe there is a future in that form of therapy in leukemia. I would be interested in someone following up that work.

I have enjoyed the other papers, also.

DR. J. W. SIMMONS (Brunswick): I would like to make an observation regarding the term "nutritional anemia."

In my experience nutritional anemia is a symptom and not a specific clinical entity in the human being. There is always a cause for nutritional anemia, and that cause may be based on the hematopoietic system or on some deficient diet that is interfering with either the hyperchromic coloring of the cells or the hypochromic coloring of the cells.

I have always referred cases, which I could not diagnose in two or three days, to someone who had a good deal more sense than I have. God deliver me from the man who always agrees with me! He never does either me or the patient any good.

It has been my pleasure to work with Dr. Roy Kracke on a number of my cases. These nutritional anemias are not any more of an entity than is the symptom of fever in a great many other diseases. Any physician who does not commence immediately to study the cells in the blood stream, analyzing their shape and size and form or morphology of the cells, and especially the classification of predominant cells in the white count, the sizes, stroma, the colorations and the variations of the erythrocytes, who does not go back to the myelocyte and come back through all the myeloblasts, and things of that kind, and trace them on to maturity, is not going to get a diagnosis of many of his anemias or of his leukemias or many of his other blood dyscrasias.

I just want to call attention to that fact because I have had some cases of fatal diseases, (quickly fatal, acute myelogenous leukemia) where the physician possibly forgot to look for the little purpuric spots on a patient, which occurred six or eight months before I saw them.

There are other symptoms that should be looked for from tip to toe. The nutrition of even a nail, the appearance and nutrition of the skin tissues, the observation of all the glandular structures of the body, are so easy to overlook that many of us do not take the time to go over our patients and determine whether or not we are dealing with an acute leukemia, a chronic leukemia, or possibly thrombocytopenic purpura. All of those blood elements should be studied with the view in mind that these conditions can be any one of a number of things.

That is the only observation I have to make regarding these papers, which are very excellent, and it is incumbent upon us general practitioners, who first see these cases, to go as far as we possibly can, with the laboratory help we have at hand; and if we cannot make a positive diagnosis then we should refer them to someone who can.

ANTIBIOTICS IN TREATMENT OF TRICHOMONAS VAGINALIS

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and

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Augusta

Various reports have appeared from time to time evaluating "in vitro" effects of certain chemicals on trichomonas vaginalis. With the advent of the antibiotics it was deemed worthy to study their trichomonacidal effect *in vitro*. This study was prompted by the fact that one of us (R.B.G.) had observed that certain of the antibiotics were clinically effective in the treatment of trichomonas vaginalis vaginitis. This paper deals with the effect *in vitro* of various antibiotics and the synergistic effect of certain

drugs and antibiotics when used in clinical trials.

In a series of tests similarly performed with specimens of trichomonads secured from the same patient, different drugs were tested for their efficiency in reducing or inhibiting motility of the trichomonad.

For each test secretions were obtained with a cotton applicator from the vaginal canal heavily infested with trichomonads and immediately put into 2 cc. of normal saline. Two-tenths cc. of this saline was pipetted into each of four small tubes. Into each of these tubes was introduced 0.8 cc. of normal saline containing different concentrations of the drugs used, bringing the total quantity in each tube to 1 cc. Into a fifth tube, 0.2 cc. of the original saline solution of trichomonads was pipetted, and 0.8 cc. of normal saline was added to act as a control. One large drop from each tube was placed on a glass slide and examined under the high power lens at different time intervals for motility of trichomonads and recorded in number of motile trichomonads per high power field. Results are recorded in Chart 1.

In interpreting the results recorded in Chart 1 it will be noted that in dosages employed aureomycin and tyrothricin are far more effective trichomonacidal agents *in vitro* than are streptomycin, chloromycetin or penicillin.

While using penicillin suppositories (50,000-100,000 units per suppository) one or two per day for 5 to 10 days in the treatment of cervicitis and other conditions it was found that occasionally the incidental trichomonas vaginalis vaginitis cleared up. When the medication was tried in a series of patients simply for this vaginal infection excellent results were not infrequently obtained. However, the incidence of cures did not measure up to expectations. The impression was gained that penicillin did not

CHART I

Saline Solution of Trichomonads Total Amt.= 1 cc.		TIME INTERVALS IN MINUTES FOR MOTILITY/HP FIELD						
			1'-5'	5'-10'	15'-20'	30'-40'	60'-70'	90'-100'
TEST I - STREPTOMYCIN		Strep. Sol. .8cc. cont'g						
Tube 1	0.2 cc.	100 mg.	0-5	0-4	0-4	0-4	0-3	0-2
Tube 2	0.2	200 mg.	0-4	0-6	0-3	0-3	0-3	0-2
Tube 3	0.2	300 mg.	0-5	0-3	0-2	0-2	0-2	0-1
Tube 4	0.2	400 mg.	0-2	none	none	none	none	none
TEST II - AUREOMYCIN		Aureo.Sol. .8cc. cont'g						
Tube 1	0.2 cc.	6 mg.	0-1	0-2	none	none	none	none
Tube 2	0.2	10 mg.	none	0-1	none	none	none	none
Tube 3	0.2	15 mg.	none	none	none	none	none	none
Tube 4	0.2	20 mg.	none	none	none	none	none	none
TEST III - TYROTHRICIN		Tyro.Sol. .8cc. cont'g						
Tube 1	0.2 cc.	0.5 mg.	0-3	0-3	0-1	none	none	none
Tube 2	0.2	2.0 mg.	none	none	none	none	none	none
Tube 3	0.2	5.0 mg.	none	none	none	none	none	none
Tube 4	0.2	8.0 mg.	none	none	none	none	none	none
TEST IV - PENICILLIN		Pen.Sol. .8cc cont'g						
Tube 1	0.2 cc.	10,000 u.	0-6	0-8	0-5	0-5	0-5	0-5
Tube 2	0.2	25,000 u.	0-10	0-5	0-5	0-5	0-5	0-4
Tube 3	0.2	50,000 u.	0-5	0-4	0-2	none	none	none
Tube 4	0.2	100,000 u.	0-1	none	none	none	none	none
TEST V - PENICILLIN (PRUCCAIN)		Proc.Pen.Sol. .8 cc. cont'g						
Tube 1	0.2 cc.	10,000 u.	0-7	0-4	0-2	0-2	0-2	0-2
Tube 2	0.2	20,000 u.	0-5	0-3	0-1	0-1	0-1	0-1
Tube 3	0.2	30,000 u.	0-4	0-3	0-1	0-1	none	none
Tube 4	0.2	40,000 u.	0-3	0-2	0-1	none	none	none
TEST VI - CHLOROMYCETIN		Chlorm.Sol. .3 cc. cont'g						
Tube 1	0.2 cc.	37.5 mg.	0-4	0-2	0-1	0-1	0-1	0-1
Tube 2	0.2	50.0 mg.	0-2	0-1	0-1	0-1	0-1	none
Tube 3	0.2	62.5 mg.	0-1	0-2	0-2	0-1	none	none
Tube 4	0.2	87.5 mg.	none	none	none	none	none	none
CONTROL TUBE	0.2 cc.	.8cc N/saline	0-6	0-8	0-7	0-5	0-6	0-7

Chart I. Laboratory data concerning the effectiveness of trichomonacidal agents in vitro.

destroy the trichomonads themselves but the flora on which they flourished. In this respect sulfonamides work in the same fashion.

Streptomycin suppositories were then tried in doses of 0.5 gram suppository every 6 hours for 5 to 10 days. The results were superior to any trichomonacidal preparation used to date. Many apparently resistant cases responded to therapy. Smaller dosages, however, were not as effective. The deterrent in using this preparation, however, was the cost of therapy.

Other antibiotics such as aureomycin,

tyrothricin, bacitracin, and chloromycetin were tried in selected cases with encouraging results. In vitro studies were done and a synergistic effect was noted when smaller doses of each of several preparations were employed. In view of the cost of these medicaments a suppository was made up containing a minimal amount of penicillin (12,500 units) and streptomycin (25 mg.) and 0.5 Gm. of sulfadiazine. Eight suppositories were inserted at the first examination and then the patient inserted one suppository four times per day for 5 to 15 days. The results have been encouraging enough

to warrant further extensive trials of various combinations of antibiotics in dosages small enough to meet the purse of the average patient afflicted with a recalcitrant case of trichomonas vaginalis vaginitis.

Note: The authors acknowledge with thanks supplies of drugs used in this study received from the following pharmaceutical companies: Aureomycin, Lederle Laboratories; Bacitracin, Commercial Solvents Company; Chloromycetin, Parke, Davis and Company; Special suppositories containing penicillin, streptomycin and sulfathiazole, Ayerst, McKenna and Harrison, Ltd.; Streptomycin suppositories, Merck and Company, Inc.; Tyrothricin, Sharp and Dohme, Inc.

CARCINOMA OF THE COLON

Carcinoma of the colon is a curable but frequently overlooked type of malignancy. It must be very insidious in its onset or else physicians who have the disease would detect it in themselves earlier than others would do so; however, early detection is not a common experience. Recently I have known of three capable doctors who have had the malady and all were surgically treated only after obstructive symptoms were noted! Therefore, it would appear proper to re-emphasize the importance of this type of cancer. We must also recaution and re-educate our doctors as to the wisdom of being ever alert to bowel symptoms, especially when symptoms occur in people who are in the middle age groups.

Generally speaking, cancer of the colon most often involves the left bowel, about a 2 to 1 ratio. A large number also occurs in the rectum. The condition is most frequent in persons between the ages of 50 and 70 years, although one should not be misled in regard to age. I have seen cancer of the colon in a 13-year-old child!

Symptomatically, colon cancer does not give remarkable symptoms until there is obstruction or hemorrhage. There are a few factors, however, which are most important as a warning or are indicative of the growth. Many patients note for quite some time that they have a vague indigestive disturbance with abdominal bloating and gaseous annoyance, associated with a feeling of gradual physical impairment which they will refer to as "weakness" and of not feeling "up to par". They ascribe these annoyances to all sorts of things, such as dietary indiscretions, overeating, etc. Some will complain of allergy attacks and headaches, which are often relieved after a good dosing with Epsom salts or some such remedy. However, the same old symptoms return later and more and frequent medication is necessary for relief. Finally, the patient becomes interested in his stool and he thinks he notes blood. Often this frightens him and he seeks a physician. The doctor then inquires about hemorrhoids, colitis, allergy and what not, and if he is wise he will immediately order a complete x-ray visualization of the entire area. It is very difficult at times to find the offending

area even in competent radiologic hands, and when casual studies have been made and negative reports given the price is costly in human life. All of us can recall such tragic mistakes! The essential thing is to find the operative lesion before obstructive signs have occurred, because at this period of the disease cure is greatly enhanced.

We now proceed further in the general symptomatology and we find that blood in one's stool, recurrent attacks of atypical diarrhea and changes in bowel habits are characteristic. Abdominal pain and discomfort are dangerous manifestations. These patients will often be able to describe a swelling in their abdomen, associated with cramps, which passes away after defecation or gas expulsion. Clinical pathology is altered and increased sedimentation rates are noted. There is a progressive moderate hypochromic anemia with a slight leukocytosis, and to re-emphasize this point: the feces will almost invariably contain chemical blood, frequently pus cells, often mixed with blastocysts, etc. The finding of blastocysts sometimes confuses the examiner and he may mistake these cells for amoeba cysts. Valuable time is often lost while treatment for an erroneous non-existent amebiasis is given! At this latter period the x-ray usually discovers without great difficulty the obstruction. Even if obstruction is ascribed to adhesions, amebiasis or some similar indisposition, it is wise to surgically investigate.

Carcinoma of the colon is a disease which can be handled very successfully by a good surgeon. Surgical technic, together with careful preparation of the patient for operation, has materially reduced mortality rates, and it is now felt that few are too old or incapacitated to withstand surgical intervention. More and more cures are being reported at 5 years, and more and more cases are being diagnosed early.

To summarize then, we may say that cancer of the colon occurs at any age, but more often between 50-70 years. Blood in the stool (68-70 per cent of cases in lesions of the left bowel), alternating attacks of diarrhea or change in bowel habits, and crampy abdominal pain all are alarming symptoms which are almost pathognomonic of the condition, and we must caution that they may be relatively late, but not by any means hopeless symptoms. We must urge more x-ray examinations of the colon by the radiologists, and we must search out and catalog clinical and physical phenomena which will help to identify this malady earlier than we have been able to detect it before.

Without intent to be poetic but rather to help emphasize the age of patients in relationship to cancer, it would indeed be helpful for the clinician to view all mid-age patients as persons who have passed out of the *sunshine of youth* into the *shadow of malignancy*!

JACK C. NORRIS, M.D.

PRESIDENT'S PAGE

PUBLIC RELATIONS

The Executive Committee of the Public Relations Committee has employed Mr. Ed L. Bridges, of Atlanta, as lay director of public relations. Mr. Bridges has had wide experience in newspaper work, having been editor of small daily newspapers and also having served on the staff of national publications and press services. He also has had good experience in public relations work, having served as public relations representative in political campaigns. Before actively beginning his work for the Medical Association of Georgia, he will spend some time at A.M.A. headquarters, and will also visit other states where a public relations office is in operation.

We feel that the first thing he should do after he finishes his tour of instruction is to visit all parts of the State and become thoroughly familiar with the medical problems in every locality. To accomplish this purpose he will need the hearty cooperation of all of our members. Only by knowing *your* problems will he be able to render you and your locality the maximum service.

Many doctors consider our problem as merely a defensive action against the socialization of medicine. This is entirely erroneous. Due to insidious propaganda the public has developed a marked distrust for doctors as a group. Each doctor's patients love him and have the greatest confi-

dence in him as an individual; however, they consider him as the exception to the rule, and maintain a marked distrust and lack of confidence in his profession generally. This confidence must be restored and can be restored by informing the public about the services rendered them by the medical profession as a body.

Our General Manager of the A.M.A., Dr. Geo. F. Lull, in his recent address to State Medical Officers in Atlantic City said: "Nothing can be accomplished by organized medicine unless its activity exists down in the County Societies-down in the grass roots. They are the people who have influence with the voters. We, at headquarters, have no influence with voters but with perhaps a few with whom we are acquainted who live in our vicinity, but the people who live down in the grass roots do have contact with the voters and the politicians pay attention to the men who vote for them".

We must make every individual physician conscious of the need for, and be willing to do his part in our public relations program if we hope and expect to accomplish beneficial results. Our committee can be the architects and the director can be the superintendent, but each of us must do our share of the actual work in building a successful and lasting program.

ENOCH CALLAWAY, M.D.

THE JOURNAL

OF THE

MEDICAL ASSOCIATION OF GEORGIA

478 Peachtree Street, N. E., Atlanta, Ga.

AUGUST, 1949

**A. M. A. RAISES STANDARDS
OF GRADUATE MEDICAL TRAINING**

The American Medical Association recently announced approval of a residency specifically designed to train family doctors and new requirements for approval of hospitals for intern training.

Previously the A. M. A. Council on Medical Education and Hospitals had approved hospitals for general or mixed residencies, which were rather loosely organized training programs, for the purpose of providing additional experience following internship.

The residency for general practice will provide supervised training in the four major clinical divisions—internal medicine, surgery, obstetrics—gynecology, and pediatrics—as well as in the auxiliary services of anesthesiology, pathology, and radiology.

Some 370 hospitals which the council had previously accredited for general residency training will be expected to reorganize their programs in accordance with the new requirements for the general practice residency, an editorial in the May 11 *Journal of the American Medical Association* says, emphasizing that the council's purpose is to encourage more young physicians to enter the field of general practice.

In the past doctors who did not intend to limit their work to a specialty have sought appointments to residencies in specialty fields because adequate facilities for a broader type of graduate training were not available, the editorial adds.

The council reemphasized the importance of a well organized program for intern training, stating that internships arranged merely to provide hospitals with resident personnel to assist in the clinical work of the hospital cannot be approved. It believes that a well organized internship of the rotating type, which provides training in the four major clinical divisions, is likely to provide the best basic training for both the future general practitioner and the future specialist.

While the majority of internships approved are now of one year's duration, the council recommended longer periods of service.

For the first time, the council suggested a method for determining the number of interns to be appointed. The bed capacity of the hospital is used as a basis, with a range of 15 to 25 beds per intern recommended. Although the council does not establish a specific num-

ber of interns to be appointed by approved hospitals, the hospitals will, no doubt, comply with this suggestion in organizing their programs, the editorial says.

Estimates indicate that 1,380 hospitals can meet the present quantitative requirements set up by the Council on Medical Education and Hospitals and hence have the potential to develop a program which will meet standards for approval by the council, according to the editorial. The number now approved for intern training is 807.

The council is making a survey of these 807 hospitals for the purpose of assuring prospective interns of satisfactory training.

The percentage of internships vacant has remained essentially unchanged since last year, the editorial reveals. The 807 approved hospitals offered 9,124 internships as of May 1, 1949, 9,118 internships in 1948. These hospitals reported that 19.7 per cent of the internships they offered were vacant in September, 1948, and 20.5 per cent were vacant in May, 1949.

"In considering the discrepancy between the number of internships offered and the number of physicians available for these positions, it should be remembered that the former figure measures the demand for interns by approved hospitals and not of necessity the actual need," the editorial points out. "These hospitals next year might well decide to offer 10,000 internships or 8,000, thereby increasing or decreasing the relative shortage."

"If all 1,380 hospitals become approved, 16,000 interns would be required to staff them. Such a supply of interns is not presently available, nor is it likely to be in the near future. The majority of these hospitals, accordingly, will have to continue to render the same high type of patient care without relying on interns."

**USEFULNESS OF CONTACT LENSES
IS LIMITED, DOCTOR SAYS**

Contact lenses will not take the place of spectacles in most cases in which ordinary eye glasses give serviceable vision, according to Conrad Berens, M.D., New York, member of the American Committee on Optics and Visual Physiology.

This committee is composed of ophthalmologists from the Section on Ophthalmology of the American Medical Association, the American Ophthalmological Society, the American Academy of Ophthalmology and Otolaryngology, and the Association for Research in Ophthalmology.

Writing in the June 18 *Journal of the American Medical Association*, Dr. Berens says:

"During the last few years considerable progress in the manufacturing and fitting of contact lenses has taken place in the United States. Not only are contact lenses now used for conditions which spectacle lenses will not correct, but many persons wear these lenses for cosmetic reasons, as well as for safety in certain sports and occupations."

Despite the recent avalanche of commercial advertising, contact lenses will not take the place of spectacles in most cases in which ordinary eye glasses give serviceable vision. In these cases contact lenses may be a useful adjunct to spectacles, but they do not enable most persons to discard their glasses completely.

"The largest group of aspiring contact lens wearers are those who have a psychologic aversion to wearing spectacles. For such persons contact lenses may be a great boon. However, the public should not be oversold on the use of contact lenses. Some manufacturers of contact lenses have misused the public vanity through advertising unwarranted claims for their products and their services."

Dr. Berens bases his conclusions on an investigation of contact lenses conducted by the American Committee on Optics and Visual Physiology in which certified specialists of the American Board of Ophthalmology were queried on their experience concerning results in the fitting of contact lenses.

Among complaints concerning the lenses most frequently mentioned by the 575 physicians who replied were the limited time that most patients can tolerate wearing the lenses, clouding of the solution used in wearing the lenses, and that the lenses are too expensive and many patients discard them.

The committee recommends that the prescribing and fitting of contact lenses by technicians not properly licensed under state or national laws should be prohibited, according to Dr. Berens.

Cases of eye injuries, eye ulcers, and loss of an eye from clumsy technic in fitting the lenses have been reported, he points out.

EVALUATE RESULTS OF SURGERY FOR HIGH BLOOD PRESSURE

A study of 100 patients who underwent sympathectomy for high blood pressure shows that five years after the operation results were favorable in only about 20 per cent, according to Kenneth A. Evelyn, M.D., and Stewart R. Cooper, M. D., Montreal, Canada, and Fred Alexander, M.D., Boston.

In this surgery, nerves of the sympathetic nervous system, which control the organs that function unconsciously and which may produce involuntary constriction of the blood vessels and other effects, are cut.

The doctors report on their study, made at the Massachusetts General Hospital, Boston, in the June 18 *Journal of the American Medical Association*.

Five years after the operation, blood pressure was reduced to normal in 8 per cent of the patients, and significant reductions, although not to normal, were noted in an additional 13 per cent, the doctors say.

Results in the remaining 79 per cent were unfavorable. In 52 per cent of the group, blood

pressures were not significantly lower than the preoperative levels, and 27 per cent of the patients were dead.

"Comparison of these results with those at the end of a two year followup shows that the results of sympathectomy tend to become less favorable as the length of the followup period increases," the doctors report, adding:

"However, it seems certain that the results of sympathetomy in the most favorable cases are valuable enough to justify continued interest in methods which will improve the selection of cases and in the development of technics which will increase the effectiveness of the operation."

TREAT LEUKEMIA WITH RADIOACTIVE PHOSPHORUS

Encouraging results in treating one form of leukemia, or cancer of the blood-forming tissues, with radioactive phosphorus are reported by three doctors on the basis of studies made at the Radiation Laboratory and Divisions of Medical Physics and Radiology, University of California, Berkeley and San Francisco.

Writing in the June 18 *Journal of the American Medical Association*, the doctors—John H. Lawrence, Berkeley, B. V. A. Low-Ber, San Francisco, and James W. J. Carpenter, Chicago—say that out of 160 patients treated for chronic lymphatic leukemia with radioactive phosphorus and x-rays, one-third were alive five years after the onset of the disease.

"When compared with five-year end results in other types of cancer, these results are relatively good," the doctors point out.

This type of leukemia is one of the major forms of the disease, although not the most common. It may develop over a period as long as two years, in contrast to the terrible rapidity with which acute leukemia progresses.

OINTMENT GIVES RELIEF FROM PAIN OF BEE STINGS

Thephorin, a drug which counteracts the effects of chemicals released from body tissues during allergic reactions, gives almost immediate relief from the pain of bee stings and ant bites, according to a report in the June 18 *Journal of the American Medical Association*.

In eight cases in which an ointment of the drug has been used for these stings and bites, the patients obtained relief in one or two minutes, says William Theodore Strauss, M.D., Upper Montclair, N. J.

POST-GRADUATE SEMINAR

Emory University School of Medicine, in co-operation with the Post-Graduate Committee of the Medical Association of Georgia, announces a seminar to be held in Atlanta Oct. 10-14. The course of instruction has been planned for the general practitioner of medicine. Those who wish to participate in this seminar should send their applications to Dr. R. H. Oppenheimer, 36 Butler St., S. E., Atlanta.

HANDICAPPED WORKERS VALUABLE IN INDUSTRY

"Industry must realign its employment philosophy to consider disabled persons as valuable, productive, and safe employees, whose contribution is fully equal to that of more physically fit workers," says Jean Spencer Felton, M.D., medical director of the Oak Ridge National Laboratory, Oak Ridge, Tenn.

Dr. Felton bases his conclusions on a study of the job performance rendered by 300 physically handicapped workers employed through a selective placement program executed by the health department of a national atomic energy laboratory.

Writing in a current issue of *Occupational Medicine*, published by the American Medical Association, Dr. Felton describes the study as "effected through use of supervisory interviews, wherein the scoring factors of quality of work, quantity of work, job knowledge, adaptability, judgment, dependability, attitude, attendance, punctuality, and ability were employed for rating by foremen, supervisors, section chiefs, or division directors."

Representatives of all job groups, such as clerical, craft, custodial, laboring, professional, and protective personnel, were included in the 300 impaired workers studied, Dr. Felton says. Seventy-five per cent of the number were men and 41.3 per cent were from 20 to 29 years of age.

The main disabilities encountered, in order of frequency, were hernia, ocular, ear, nose, and throat, orthopedic, and neuropsychiatric disorders and tuberculosis.

The control group of 300 so-called physically perfect employees was matched fairly well by age, occupation, sex, race, and marital status with the study group, according to the article.

"Study of the scoring factors revealed no significant difference between the disabled and control workers, with the exception of quantity of work, wherein the impaired employees definitely scored higher," Dr. Felton emphasizes.

"There was a significant difference in the total number of impaired (48 per cent) and unimpaired (58.3 per cent) workers who sustained injuries.

"Irrespective of the type of disability possessed by the physically limited employee, his average total score approximated that of his fellow worker.

"The equal job performance rendered by physically limited employees points up the fallacy of rigid physical standards in industry. Placement of disabled persons is based on sound economic and social principles, for rather than a financial drain on society caused by unemployment, a solid integration into the industrial scene of a highly productive group of workers results."

A program of selective job placement allows valuable employment of physically impaired workers, Dr. Felton points out.

"Each person applying for work at the laboratory underwent a preplacement physical examination, which consisted of clinical studies, laboratory examinations, and a personality appraisal," he says, describing the program through which the 300 handicapped workers were employed.

Physically handicapped persons were classified "For special employment only," and job restrictions such as "No work in cold quarters" and "No work involving great nervous tension" were applied.

"The file of the physical demands of all jobs was then consulted, and if the prospective employee with his job restrictions could meet the demands of his desired job, he was recommended for employment. If he failed to have sufficient capacity for the job, all efforts were made to find employment in the laboratory that would be within the limits of his training, skills, and experience.

"If it was still impossible to place the person, and he had a remediable defect, the local office of vocational rehabilitation was contacted, and the necessary medical,

surgical, or psychiatric care was secured. During this time the job availability was retained."

Only 1.2 per cent of 4,064 applicants given preplacement physical examinations failed to secure employment because of severe disqualifying defects.

HAY FEVER DRUG MAY CAUSE URINARY OBSTRUCTION

Pyribenzamine hydrochloride, an antihistaminic drug that has been used for hay fever and to relieve symptoms of colds, may cause urinary obstruction, says Samuel A. Wolfson, M.D., Los Angeles, in the July 16 *Journal of the American Medical Association*.

The antihistaminic drugs inhibit the action of histamine, a chemical released from body tissues during allergic reactions.

Dr. Wolfson reports a case in which urinary obstruction was attributed to pyribenzamine hydrochloride.

"Various side reactions from the use of pyribenzamine hydrochloride have been observed," he points out. "Drowsiness, dizziness, gastric disturbances, and headache have been the responses most commonly evoked. Less frequent in occurrence have been urinary burning and urinary frequency."

"I recently saw a patient whose reaction to the drug involved the urinary tract. To prove the validity of the assumption that the distress was due to the antihistaminic agent, it was planned to reproduce the condition at a later date.

"The patient was observed for two months, during which urinary function remained normal. On May 3, 1949, the patient received pyribenzamine hydrochloride at 7 a.m. and again at noon. About 4 p.m. the urinary difficulty reappeared. No more of the drug was administered. The symptoms rapidly subsided and have not returned to date."

SUNBURN AND CHIGGER REMEDIES MAKE SUMMER MORE COMFORTABLE

The simplest and most effective treatment for mild sunburn is the application of cold compresses of strong tea, says Sigmund S. Greenbaum, M.D., professor of dermatology and syphilology at Jefferson Medical School, Philadelphia.

"The tannic acid in the tea often relieves the pain at once and within 24 hours may convert the sunburn into a gratifying tan," he writes in the July issue of *Hygeia*, health magazine of the American Medical Association.

The compresses can be made by dipping any clean white cloth into the tea which has been allowed to cool and wringing out the excess moisture.

Cold compresses of milk or caron oil are also beneficial for mild sunburn, according to Dr. Greenbaum.

"In recent years, numerous remedies have appeared on the market, either to prevent sunburn or to help the user to achieve a uniform tan," he points out.

"There is a variety of widely advertised greases containing local anesthetics which relieve the pain of mild sunburn but are of little value if blistering has occurred. Such anesthetics may interfere with healing and, of course, are harmful to those sensitive to them."

Sunburn prevention and suntan preparations are of three general varieties, Dr. Greenbaum explains: opaque substances, such as phenyl salicylate or salol, zinc oxide ointment, some types of red vaseline, cold cream, or oil; fluorescent substances such as quinine sulfate; and tanning substances, such as tannic acid.

The first two types of preparations are the best for preventing sunburn, he advises, although all offer some protection. Too much should not be expected of any sunburn preparation, however; common sense is still the best preventive.

For chiggers which accompany suntan acquired on grass, a hot soapy bath as soon as possible after exposure may help by washing them off before they have

a chance to dig in, says another article in the same issue of the magazine. Dusting sulfur in shoes and socks is a helpful precaution before hiking in weeds and grass.

SIMPLE RULES HELP SECURE GOOD NUTRITION FOR FAMILY

Nutrition need not be a mystery to the average housewife, says Lois Mattox Miller, New York, in the July issue of *Hygeia*, health magazine of the American Medical Association.

All the needed nutritional elements are available in 11 basic food groups—milk and cheese; meat, poultry, and fish; eggs; dried beans, peas, nuts, peanut butter; leafy green and yellow vegetables; citrus fruits and tomatoes; other fruits and vegetables; potatoes; cereals and breads; butter, margarine, and cooking fats; and sugar, Mrs. Miller points out.

Housewives also need to remember that nutrition can be wasted by being boiled or burnt away, tossed into the garbage pail, or poured down the drain, according to Mrs. Miller.

If fresh vegetables are allowed to stand exposed in the kitchen for hours, wilting and exposure to light and air can cause loss of essential nutrients. If carrots are scraped or peeled and peas and lima beans shelled and allowed to soak in pots of water, water-soluble vitamins and minerals will be lost. Shredding cabbage and cutting salad greens long before serving destroys some of the vitamin C content.

The old-fashioned practice of boiling all vegetables in excessive amounts of water for too long causes loss of precious vitamins and minerals. Vegetables look fresher and more appetizing and actually taste better when they are dropped into a pot containing just enough boiling water to cook them without sticking and cooked quickly with the pot tightly covered.

Leaving butcher's paper around meat when it is placed in the refrigerator causes loss of precious juices and prevents proper cooling and storage. Roasting meats at high oven temperatures causes excessive shrinkage, charring, and loss of juices, and defeats sound nutrition. A moderately low temperature (300-350 degrees) cooks a roast uniformly throughout, decreases cooking loss, and produces more palatable meat.

Faulty food habits and prejudices can be combated by putting food on plates in the kitchen so that there is less chance to pick and reject, Mrs. Miller says. The traditional masculine aversion to raw vegetables—"rabbit food"—can cause diet deficiencies in men. Feminine wiles such as disguising salads can be brought to bear on this problem, she suggests.

ANNOUNCEMENT OF REGULAR CORPS EXAMINATION FOR MEDICAL OFFICERS

United States Public Health Service

A competitive examination for appointment of Medical Officers in the Regular Corps of the United States Public Health Service will be held on October 3, 4, and 5, 1949. Applications must be received no later than September 5, 1949.

The Regular Corps is a commissioned officer corps composed of members of various medical and scientific professions, appointed in appropriate professional categories such as medicine, dentistry, nursing, engineering, pharmacy, etc.

Appointments will be made in the grades of Assistant Surgeon (1st Lt.) and Senior Assistant Surgeon (Captain). Appointments are permanent in nature and provide opportunities to qualified physicians for a life time career in clinical medicine, research, and public health. All commissioned officers are appointed to the general service and are subject to change of station.

Requirements for appointment in the grade of Assistant Surgeon: the applicant must be a citizen of the United States, at least 21 years of age, and a

graduate from a recognized school of medicine. Physicians who are successful in the examination and are now serving internships will not be placed on active duty in the Regular Corps until completion of internship. Applicants for appointment in the grade of Senior Assistant Surgeon must meet the above requirements and must have had a total of at least ten years of educational training and professional experience subsequent to high school. Applicants who meet these requirements will receive a written professional test, an oral interview, and a physical examination.

The professional written examination for the grade of Assistant Surgeon will cover the following subjects: 1. anatomy, physiology, biochemistry; 2. materia medica and therapeutics; 3. obstetrics and gynecology; 4. practice of surgery; 5. practice of medicine; 6. epidemiology and hygiene; 7. pathology and bacteriology. Senior Assistant Surgeon applicants will be examined on subjects 4, 5, 6, and 7 listed above.

Examinations will be held at a number of points throughout the United States, located as centrally as possible in relation to the homes of candidates.

Entrance pay for an Assistant Surgeon with dependents is \$5,011 per annum; for Senior Assistant Surgeon and dependents, \$5,689. These figures include the \$1200 annual additional pay received by medical officers as well as subsistence and rental allowance.

Promotions. Provisions are made for promotion at regular intervals up to and including the grade of Senior Surgeon (Lt. Col.) and for selection for promotion to the grade of Medical Director (Col.) at \$9,751 per annum.

Retirement pay after 30 years of service (or at the age of 64) is \$4,950 per year. Disability compensation is three-fourths of base pay per annum.

Additional benefits include a 5 per cent increase in base pay for every 3 years of service (time served as a member of the armed forces is credited), 30 days annual leave, sick leave, full medical care, and many of the usual privileges extended to members of the military forces.

Application forms and additional information may be obtained by writing to the Surgeon General, United States Public Health Service, Washington 25, D. C. Attention: Division of Commissioned Officers. Complete applications must be received by September 5, 1949.

HEALTHGRAMS

Because an industrial environment is supposed to be dirty, grimy, and dusty, it has, out of ignorance, been accused of being an incubator for tuberculosis. Such thinking disregards vital components outside of the working environment of the employee, such as the economic factor, living conditions, congested housing, improper nutrition, financial insecurity with all its attendant worry, personal and community hygiene. Rutherford T. Johnstone, M.D., Am. Rev. Tuberc., Oct., 1948.

* * *

A large share of the success in controlling the disease (tuberculosis) over the years should probably be credited to the intensive educational campaign through which the average person has been taught the importance of early diagnosis and treatment, the recognition of the characteristic symptoms, and the measures to be taken to prevent the spread of the disease. The large number of tuberculosis clinics and sanatoria have also played an important role in saving the lives of tuberculosis patients. Louis I. Dublin, Ph.D., Health Progress 1936 to 1945, Metropolitan Life Insurance Co.

* * *

Patients discharged with occasionally positive sputum experience a reactivation of their tuberculosis more frequently than those with unequivocally negative sputum. Robert Chang, Am. Rev. Tuberc., Sept., 1948.

GEORGIA DEPARTMENT OF PUBLIC HEALTH

PROBLEMS AND RESPONSIBILITIES OF THE PHYSICIAN UNDER THE LAW REQUIRING PREMARITAL EXAMINATION FOR SYPHILIS

ALBERT HEYMAN, M.D.
Atlanta

A law requiring a premarital physical examination and serologic test for syphilis has recently been enacted by the Georgia Legislature and will become effective August 25, 1949. After this date every application for a marriage license must be accompanied by a certificate, signed by a physician, stating that the applicants have been examined and do not have syphilis in an infectious or potentially infectious stage. The physician requested to make this examination is confronted not only with the problem of determining if an applicant has syphilis, but also if the infection is or may become communicable. The present article is intended to assist the physician in this problem and to summarize some of the available information on the infectiousness of syphilis.

The serologic test for syphilis cannot be completely relied upon for the detection or exclusion of syphilis, since a negative test may occur in the presence of the disease, while a positive reaction does not always indicate the existence of a syphilitic infection.

Negative Serologic Reaction in the Presence of Syphilis

A negative serologic reaction is often found in the early stages of primary syphilis, and a physical examination of the marriage applicant is therefore necessary to rule out the presence of early syphilis. The genital area should be carefully examined since 95 per cent of all primary lesions of syphilis appear in this region. About 5 per cent of chancre occur on the lips, breast, mouth and fingers; unusual lesions in these areas should be suspected of being syphilitic. Chancre of the cervix are also frequently overlooked and cervical ulcerations should routinely be examined by darkfield technics. The clinical appearance of the chancre is often atypical and cannot be relied upon for the diagnosis of syphilis. Every genital lesion, therefore, regardless of its appearance, should have a darkfield examination.

Negative serologic tests for syphilis may also appear in patients who have been inadequately treated. In such cases the amount of treatment administered may have been sufficient to cause disappearance of syphilitic lesions and temporary reversal of the serologic test. These patients are potentially infectious, however, and often develop recurrent lesions containing large numbers of spirochetes. The detection of such

cases before marriage is obviously of considerable importance and a detailed history regarding previous syphilitic infection and the type and amount of antisyphilitic therapy should be obtained from each marriage applicant. The decision as to whether such patients have received adequate treatment and whether there is a likelihood of infectious relapse is often difficult. Adequate treatment for early syphilis can be arbitrarily considered to be a minimum of either 2.4 million units of penicillin or 20 injections of an arsenical and 20 of bismuth. The incidence of infectious relapse in patients treated for early syphilis with less than this amount of therapy is sufficiently high to warrant further treatment, even though the serologic test is negative. It must be remembered, however, that 95 per cent of all infectious relapses occur within four years after completion of treatment. If the applicant had completed therapy more than four years previously and if he shows no clinical, serologic or spinal fluid evidence of syphilis, the chances for developing an infectious recurrence, even with grossly inadequate treatment, are minimal. Such cases should be permitted to marry.

Positive Serologic Reactions in the Absence of Syphilitic Infection

Not only do negative serologic tests occur in patients with syphilis, but positive reactions often appear in patients without syphilitic infection. False positive serologic reactions may result from technical or clerical errors. The incidence of technical errors may be quite high in some laboratories. For this reason the premarital examination law states that the serologic test may be performed only in a laboratory approved by the State Health Department, or in any Army, Navy or Public Health Service approved laboratory. The number of false positive reactions resulting from technical errors should thus be reduced to a minimum.

Positive serologic tests also occur as a result of a variety of illnesses and are called biologic false positive reactions. These reactions are usually transient, but in some instances may be positive for as long as a few months to a year. The existence of a biologic false positive reaction should be suspected in all individuals recovering from febrile or infectious illnesses, such as upper respiratory diseases, infectious mononucleosis, malaria, mumps, measles, atypical pneumonia, or hepatitis. Immunizations, such as vaccination, as well as tetanus or typhoid inoculations, may also produce such reactions.

The presence of false positive reactions should also be suspected in individuals without a history or clinical evidence of syphilis, in those denying sexual exposures, and in applicants whose previous marital partners were known to have negative serologic tests. In all such instances it is desirable to withhold treatment and to conduct

further studies. The blood of such patients should be examined for evidence of infectious mononucleosis. A careful history should be taken as to symptoms of intercurrent infection or immunization, and a physical examination should be performed for evidence of such conditions. False positive reactions are usually low in titer and the results are often conflicting when several flocculation or complement fixation techniques are employed. In some patients, however, the titer may be high. Repeated serologic tests should be taken with different techniques and in different laboratories, and the quantitative titer of the reaction followed. Periodic quantitative tests will show a fall in titer if the reaction is false positive, but will rise or remain stationary if the patient has syphilis. A spinal fluid examination should also be done to exclude the possibility of neurosyphilis. The patient's parents, siblings and sexual contacts should also be tested for syphilis. Attempts to produce a rise in serologic titer by injection of arsenicals or penicillin (so-called provocative tests) are of no value in the diagnosis of questionable reactions. The use of a highly purified, more specific antigen, called cardiolipin, and the euglobulin inhibition test devised by Neurath and his associates, are often of considerable aid in the diagnosis of false positive tests. If none of these procedures can establish a definite diagnosis, and if a false positive reaction is still thought to exist, the applicant should be urged to postpone marriage for several months. In most cases the false positive reaction will become negative within this period of time. If after six months the patient still shows a positive serologic test and if the adjunct procedures do not indicate a false positive reaction, antisyphilitic therapy is recommended. If the applicant is pregnant or insists on getting married immediately, antisyphilitic therapy should be instituted without further delay.

Factors Determining the Infectiousness of Syphilis

The object of the premarital examination law is to prevent the marriage of infectious or potentially infectious individuals. The mere fact that an applicant had, at one time, a syphilitic infection which continues to produce a positive serologic test is not, in itself, justification for denial of permission to marry. Syphilis is most infectious during the primary and secondary stages, when there are moist skin or mucosal lesions. Transmission during this period occurs by direct contact with these lesions or with infectious body secretions, such as semen or saliva.

The infectious lesions of early syphilis heal spontaneously, but will usually reappear during the first two years of the disease if treatment is not instituted. The recurrent lesions resemble those of secondary syphilis and occur on the skin or mucous membranes. They are usually less profuse and often appear insignificant. They are, nevertheless, highly infectious. Most individuals with syphilis will have developed suf-

ficient immunity by the end of the second, and almost certainly by the end of the fourth year, to suppress such lesions. For this reason, syphilis can be considered non-infectious after the fourth year. If the patient has received repeated courses of inadequate therapy, however, immunity may have been aborted and infectious lesions may occur for as long as ten years or more after the onset of the disease. The danger of transmitting syphilis is greatest during the first four years of the disease, and applicants with congenital syphilis may be considered non-infectious and may be permitted to marry.

Although determination of the infectiousness of syphilis depends to a great extent upon the duration of the disease, it is not always possible to date the onset of the infection. In the absence of a history of primary or secondary lesions, it is often impossible for the physician to decide whether the patient with latent syphilis has the disease in an early infectious stage or whether it is more than four years duration, i.e., late syphilis. Information as to the age of the individual, the history of previous sexual exposures and the result of previous serologic tests may be helpful in this situation. Thus, if the applicant with latent syphilis is less than 25 years of age and admits having sexual relations only during the previous two or three years, he may be assumed to have early syphilis and is potentially infectious. If the serologic test for syphilis is known to have been negative within four years previously and is now persistently positive, it is also safe to conclude that the infection has been recently acquired and is communicable. On the other hand, patients over forty years of age who have positive serologic tests usually have had the disease for many years and would not therefore be infectious. Regardless of the duration of the disease, however, treatment should be given to every marriage applicant who has not had previous therapy.

Management of Applicants Known to Have Syphilis

A persistently positive serologic test for syphilis does not in itself indicate infectiousness, but may be evidence of seroresistance, or Wassermann-fastness. Patients with true seroresistance have usually had sufficient treatment to render them non-infectious, although the blood test may not become negative for many years. To deny them the right to marry on the basis of a positive serologic reaction would be an injustice.

Patients with positive serologic reactions should be retreated if the disease is known to be less than four years duration, if the spinal fluid shows evidence of syphilis or if the amount of treatment previously administered cannot be accurately determined and is thought to be less than 2.4 million units of penicillin or less than 20 injections of arsenicals and 20 of bismuth.

If the applicant is found to have infectious or potentially infectious syphilis, he should be given at least 2.4 million units of penicillin be-

fore being permitted to marry. Penicillin therapy is now believed to produce satisfactory results in approximately 85 to 90 per cent of patients with infectious syphilis. About 10 to 15 per cent of patients with early syphilis treated with penicillin will develop a relapse, usually within six months to a year. In our opinion, it is advisable that patients with infectious syphilis delay their marriage for at least this period of time after treatment has been completed in order to determine whether the therapy was successful. Under the Georgia premarital examination law, however, a marriage license may be granted to an applicant with syphilis immediately after he has received treatment, provided his marital partner has been made aware that a syphilitic infection is present, and provided the patient signs an agreement to continue treatment until cured or dismissed from observation.

Before granting an applicant with syphilis permission to marry, the amount and method of treatment, the stage and duration of the disease, and the results of serologic tests should be carefully evaluated. The physician's responsibility in permitting the marriage of syphilitic patients is so great that consultation with expert syphilologists should be sought wherever there is doubt as to the proper management of the individual problem. The State Health Department offers consultant services of trained syphilologists and the physician is urged to avail himself of this assistance.

Summary

The factors determining the infectiousness of syphilis are discussed in relation to premarital examinations for syphilis.

NEWS ITEMS

Emory University School of Medicine, in cooperation with the Medical Association of Georgia Post-Graduate Committee, will hold a seminar in Atlanta, Oct. 10-14. The course of instruction has been planned for general practitioners of medicine.

* * *

The Bibb County Medical Society held its dinner meeting at the S and S Cafeteria, Macon, July 5. Dr. V. P. Sydenstricker, Augusta, was guest speaker. His subject was "Hemolytic Anemias". Dr. A. M. Phillips, secretary.

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The Minnie G. Boswell Memorial Hospital, Greensboro, held its dedication ceremonies and open house on Sunday afternoon, July 31.

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Drs. H. W. Clements and F. N. Clements, Adel physicians, recently completed the remodeling and redecorating of their offices. They now have reception rooms for both white and colored patients, professional and business offices, x-ray rooms and other equipped rooms which compare favorably with any physicians' offices in South Georgia. Congratulations to Drs. Clements!

* * *

Dr. Olin S. Cofer, Atlanta surgeon, was recently appointed as a member of the Council of the Southern Medical Association, to succeed Dr. W. A. Selman, Atlanta, whose term will expire with the close of the Cincinnati meeting and who, having served the consti-

(Continued on Page 361)

MEETING OF THE EXECUTIVE COMMITTEE OF THE PUBLIC RELATIONS COMMITTEE MEDICAL ASSOCIATION OF GEORGIA

Atlanta, July 21, 1949

Present were: Drs. Enoch Callaway, W. F. Reavis, Eustace Allen, Spencer A. Kirkland and Edgar Shanks.

The meeting was held primarily for the purpose of selecting a lay director to work with the Public Relations Committee of the Medical Association of Georgia. After full discussion of current problems, and of applications for the position of lay director, it was voted that the position be offered Mr. Ed Bridges of Atlanta, at a salary not to exceed \$416.66 per month. Drs. Callaway, Allen and Shanks were authorized to confer with Mr. Bridges regarding his wishes in the matter; also to employ a suitable secretary to work with the lay director of the Public Relations Committee. Finally, it was voted that the lay director of the Public Relations Committee be given the title of public relations director.

Discussing finances (the committee having presently available the amount of \$10,000), it was voted that the lay public relations director first visit the Public Relations Department of the American Medical Association and the public relations departments of the medical associations of Michigan, Tennessee and Alabama, to learn all he can regarding medical public relations, and that upon his return to Atlanta the committee meet again for the purpose of perfecting a program of public relations for the Medical Association of Georgia. In this connection, it was voted that the actual travel expenses of the lay director of public relations be paid for this tour of duty; also if and when he travels within the boundaries of Georgia in line of duty, that he be allowed 6 cents per mile when he uses his own automobile; if travel is by bus, train or plane, the allowance will be for actual expenses, including room rental and meals.

It was voted that the chairman of the Public Relations Committee be the immediate supervisor of the lay public relations director "and see that he carries out the program as outlined by the Executive Committee of the Public Relations Committee, and that no expenditures be made beyond the committee's annual budget."

Drs. Allen, Kirkland and Shanks were designated a sub-committee to make arrangements for suitable office space for use by the Public Relations Committee and its lay director.

Dr. Shanks was requested to act as secretary for the Public Relations Committee and, among other things, to write a letter to Mathis, Murphey and Bondurant, of Atlanta, thanking them for their willingness to help develop the public relations program of the Medical Association of Georgia. Finally, he was requested to send each member of the Executive Committee of the Public Relations Committee a copy of these minutes and at the same time list the estimated cost for the Public Relations Committee for the first year, which follows and which has been based on the experience of states having medical associations somewhat like Georgia.

Salary—Director	\$ 5,000
Salary—Secretary	2,400
Traveling expenses	1,500
Conferences	500
Radio programs	1,500
Press, advice, space, etc.	1,000
Printing, literature and bulletins	500
Telephone and telegraph	500
Office rent	600
Stationery and office supplies	600
Postage	500
Office equipment	500
Miscellaneous, including social security tax	300

Total Public Relations Department \$15,400
EDGAR D. SHANKS, M. D.,
Secretary.

(Continued from Page 360)

tutional limit of five years, is not eligible for reappointment. The appointment was made by Dr. Hamilton W. McKay, Charlotte, N. C., president-elect. From now until the meeting Dr. Cofer's name will be carried on the Association's roster as Councilor-elect and he will sit with the Council at the Cincinnati meeting, Nov. 14-17, 1949, along with the other two councilors-elect, but without a vote at that meeting. Dr. Cofer has been an active member of the Association for many years, has a fine record of attendance at annual meetings, and has served the Section on Gynecology as secretary, vice-chairman and chairman. C. P. Loranz, Birmingham, secretary-manager, Southern Medical Association.

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Dr. Charles T. Cowart, LaGrange, announces the opening of his office in the Hammitt Building, 301 Broome Street, LaGrange, for the practice of general surgery.

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Dr. C. E. Cunningham, Decatur, announces the association with him of Dr. Robert P. Shinall, 210 Masonic Temple, Decatur, in the practice of medicine.

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Dr. Howard C. Derrick, LaFayette physician, recently assumed his duties as the new president of the Rotary Club, LaFayette.

* * *

Emory University School of Medicine, Atlanta, was recently granted \$110,000 by the W. K. Kellogg Foundation of Battle Creek, Mich., to establish an extension service to extend the benefit of big city medical skill to all parts of Georgia. The foundation will provide \$20,000 a year for five years. After that, the program is expected to be self-supporting. Emory University dean R. Hugh Wood explained that every hospital and community in the State stands to benefit. He said beginning of the program will climax ten years of planning. The capstone of the program will be Emory University School of Medicine and its three affiliated teaching hospitals: Emory University Hospital, Grady Memorial Hospital and Lawson General VA Hospital. From the set-up, Dean Wood said, the following services will be made available to all hospitals affiliating with the program: 1. Training of doctors; 2. Consulting and teaching services by members of the medical faculty; 3. Technical services (x-ray interpretation, for example), which a small town hospital generally cannot afford; 4. Refresher courses for doctors. "Here," added Dr. Wood, "is better care for patients and better training for doctors, provided painlessly and at low cost, with no interference with anybody's independence. Through the program, even a small rural hospital may give intern training for young doctors. The interns will spend nine months in the smaller hospital and the other three in one of the city hospitals. Hospitals will be affiliated with the program as they apply, Dean Wood announced.

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Dr. George W. Fuller, Atlanta surgeon, attended surgical clinics at the Lahey Clinic, Boston, Mass., the week of June 14.

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The Georgia Baptist Hospital regular monthly medical staff meeting was held in the Nurses' Home dining room, Atlanta, July 19. Dr. C. C. Aven led the discussion of "Cases of Torula Infection" at the clinicopathologic session. Dr. J. C. Blalock, secretary.

* * *

The Georgia Society of Ophthalmology and Otolaryngology will hold its annual meeting at the General Oglethorpe Hotel, on Wilmington Island, Savannah, March 3 and 4, 1950. It is expected that next year's meeting will attract an attendance of between 225 and 300 eye, ear, nose and throat physicians from throughout the State, and their families. Officers are Dr. Lester

Brown, Atlanta, president; Dr. Edwin Maner, Savannah, immediate past president, and Dr. Braswell E. Collins, Waycross, secretary-treasurer.

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Dr. H. A. Goodwin, Summerville, announces his association with Dr. R. N. Little at the Little Clinic, Commerce Street, Summerville, for the practice of medicine.

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Dr. William Kiser, Jr., Atlanta, announces that his practice will be limited to behavior problems of children, at 33 Ponce de Leon Avenue, N. E., Atlanta.

* * *

Dr. E. D. King, Valdosta, of the City Health Department, recently reminded Valdosta citizens that they should carefully inspect their premises for "mosquito hatcheries." "Look carefully for any old buckets, tubs, or other containers which might hold water from the rains and provide breeding places for mosquitoes," Dr. King advised, "and make sure all these are emptied."

* * *

Dr. Bruce Logue, Atlanta, associate in medicine in Emory University School of Medicine, is the new president of the American Federation for Clinical Research. A native of Augusta, Dr. Logue was graduated from Emory University School of Medicine and interned at Royal Victoria Hospital, McGill University, Montreal, Canada. In 1941 he joined the U. S. Army Medical Corps. At one time he served as chief of the cardiovascular section at Lawson General VA Hospital. He joined Emory University Hospital staff when released from active duty in 1945. He is a cardiologist, and also serves as president of the Georgia Heart Association.

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Dr. Robert C. Major, Augusta, announces the association of Dr. Robert G. Ellison in the department of thoracic surgery at the University of Georgia School of Medicine and University Hospital, Augusta.

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Dr. Michael C. Murphy, Jr., Atlanta, announces the opening of his office for the practice of internal medicine, 85 Merritts Avenue, N. E., corner Peachtree, Atlanta.

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Dr. James E. Paullin, Atlanta, will retire from the faculty of Emory University School of Medicine, effective September 1, it was announced recently by Dr. Goodrich C. White, president. Dr. Paullin, professor of clinical medicine, becomes professor emeritus after 42 years of service. President of the American Medical Association in 1943, the prominent Atlanta physician was one of ten medical leaders selected from throughout the world to preside at the meeting of the first International Poliomyelitis Conference held in New York last July. Dr. Paullin attended the late President Franklin D. Roosevelt when he was stricken and died at Warm Springs. He served during the war as an honorary consultant to the Navy bureau of medicine and surgery, and was awarded the Legion of Honor medal of merit by the late Secretary James Forrestal. In 1945 he made a special study of the Navy medical problems in the South Pacific islands. Born in Fort Gaines, Ga., Dr. Paullin took his A.B. from Mercer University, Macon, and M.D. from Johns Hopkins University School of Medicine, Baltimore, Md. Mercer awarded him an honorary degree in 1929, and Emory in 1943. He served as a major in World War I and for eight years was associated in private practice in Atlanta with Dr. R. Hugh Wood, now dean of Emory University School of Medicine. Dr. Paullin received the certificate of distinguished achievement of the year from the Atlanta Chamber of Commerce in 1944. The retiring professor is a former president of the American Clinical and Climatological Society, the American College of Physicians, the Medical Association of Georgia, and the Fulton County Medical Society.

Dr. Fenwick T. Nichols, Jr., a native of Savannah, announces the opening of his office at 102 East Gwinnett Street, Savannah, for the practice of internal medicine. Dr. Nichols graduated from the University of Georgia School of Medicine, Augusta, and held a rotating internship at the University Hospital, Augusta, for nine months after graduation. He served as a lieutenant (junior grade) in the Navy medical corps in the Pacific theater from December 1944 to May 1946. He had a year of pathology as assistant resident in pathology at Emory University Hospital, Atlanta, and also served as assistant resident in medicine at Grady Memorial Hospital, Atlanta. A fellow in medicine at Grady, Dr. Nichols was also a member of the teaching staff at Emory University School of Medicine, and public health physician in the genito-infectious disease clinic at Grady Memorial Hospital, July 1948 to June 1949. In 1944 he married Dr. Caroline Jane Williams, a native of Montgomery, Ala. Mrs. Nichols is a graduate of Vanderbilt University School of Medicine, Nashville, Tenn. She interned for a year at Massachusetts Memorial Hospital, Boston, and the University Hospital, Augusta, at which hospital she was also resident in medicine. She was associated with the Roberts Memorial Clinic, Atlanta, for two years in the practice of internal medicine. Mrs. Nichols is not planning to practice at present.

* * *

Dr. Carol Pryor Oliver, was recently named college physician for the Georgia State College for Women at Milledgeville. She has been for the past several months on the staff of the City Hospital, Baltimore, Md. Dr. Pryor was one of the three young physicians who conducted a hospital survey for the Georgia Department of Public Health in 1947.

* * *

Dr. Charles L. Prince, Savannah, announces the association of Dr. Peter L. Scardino in the practice of urology at 2515 Habersham Street, Savannah. Dr. Scardino is a native of Houston, Texas, and graduated from the University of Texas Medical Branch, Galveston, Texas, in 1941. Following his graduation from medical school, Dr. Scardino served as intern and later as assistant resident in surgery at the City Hospital, St. Louis, Mo. He entered the Navy in 1943, serving with the medical corps of the North Atlantic Fleet until 1945, after which he served as medical officer at the U. S. Naval Hospital, Portsmouth, Va. He was discharged from the Navy early in 1946 with the rank of lieutenant commander. Since that time, Dr. Scardino has been a member of the staff of the James Buchanan Brady Urological Institute of the Johns Hopkins Hospital, where he completed the residency in urology. Dr. Prince and Dr. Scardino first became associated at Johns Hopkins University School of Medicine, Baltimore, Md., when Dr. Prince was a member of the faculty, before he moved to Savannah. Dr. Scardino is a member of various medical organizations, and is the author of a number of papers on urology and allied subjects. He is now writing a textbook entitled "Pediatric Urology," which is to be published by Charles C. Thomas Company. He is also an abstract editor of "Surgery, Gynecology and Obstetrics," the official journal of the American College of Surgeons.

* * *

Dr. W. K. Sharp, Jr., Washington, D. C., will become Regional Medical Director of the U. S. Public Health Service with Atlanta headquarters, October 1, the agency has announced in Washington. Dr. Sharp will succeed Dr. Calvin A. Applewhite, of New Orleans, who is retiring. The district office of the U. S. Public Health Service has been removed from the New Orleans office, consisting of some 60 professional and clerical personnel, and will be located in the Silvey Building at 114 Marietta St., N. W., Atlanta. The office serves the states of Alabama, Florida, Georgia, Mississippi, South Carolina and Tennessee. Dr. Sharp is a graduate of the Atlanta College of Physicians and Surgeons, now Emory

University School of Medicine, Atlanta. He served his internship at the U. S. Marine Hospital, Savannah, and the Willard Parker Hospital in New York City. He has held positions in the fields of public health service and preventative medicine, and at one time was detailed to the Tennessee Valley Authority to assist in development of public health activities in the TVA area.

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Dr. Joel P. Smith, Atlanta, announces the opening of his offices at 26 Linden Avenue, N. E., Atlanta. Practice limited to diseases of eye, ear, nose and throat.

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Dr. Reuben E. Smith, a native of Lawrenceville, recently joined the staff of the Hutchins Memorial Hospital, Buford, where he will be associated with Drs. W. H. Hutchins and Harry Hutchins, both of Buford. Dr. Smith is a graduate of University of Georgia School of Medicine, Augusta, and served his internship at the U. S. Marine Hospital, Savannah, after which time he served as a captain in the U. S. Army Medical Corps. At the conclusion of his medical service with the Army he spent sometime as a member of the staff of Macon Hospital, Macon, where he took a number of refresher courses under the supervision of outstanding physicians who were connected with Macon Hospital. He returned to Lawrenceville two years ago to begin the practice of medicine.

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Dr. John Stillwell, Thomasville, of the health board of Thomas and adjacent counties of Brooks and Colquitt, gave the Thomasville Rotary Club a very conclusive and comprehensive talk on the public health service as it is exemplified in the above-named counties. Dr. Stillwell gave a brief outline of the setup in Georgia, the divisions of the State and the progress that has been made toward improvement and effectiveness of the service as it is now exemplified. The program includes vital statistics, dairy inspections, restaurant supervision, there being 133 restaurants on the list, and the dairy and milk inspections, showing a 90 per cent rating.

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Dr. Scott L. Tarplee, Atlanta, announces the removal of his office to 29 Twelfth Street, N. W. (between Spring and West Peachtree Streets) Atlanta. Practice limited to internal medicine.

* * *

Dr. J. A. Thrash, Columbus, executive director of the City Hospital, Columbus, has announced that the institution will be the first outside Atlanta to participate in a \$110,000 medical center to be set up in the Georgia capital in connection with Emory University School of Medicine. The \$110,000 grant by the Kellogg Foundation of Battle Creek, Mich., to Emory University School of Medicine to establish the regional medical center was recently announced, but no participating hospitals were disclosed at that time. One of the chief benefits of the program would be a constant source of supply of interns and resident physicians for the City Hospital, Dr. Thrash explained. Plans have already been worked out with Dr. R. Hugh Wood, dean of Emory University School of Medicine, for the affiliation of the Columbus Hospital with the Emory-operated center. Dr. Thrash said he expected the City Hospital to be greatly improved as a result of the affiliation.

* * *

The Fulton County Medical Society held its dinner meeting at the Academy of Medicine, Atlanta, July 7. Scientific program: Dr. John W. Turner, moderator; "Granuloma of the Ureter", Dr. Ernest Felber; "The Difficult Genital Fistula: A New Method for Relief of Tension", Dr. George A. Williams and Dr. Barton A. McCrum; "Prevention of Complications in the Surgical Cardiac", Dr. Louis K. Levy.

* * *

University of Georgia School of Medicine, Augusta, announces that six medical school students reported to

work at the Richmond County Health Department as a part of their regular curriculum. This is the second of three groups learning public health methods first hand rather than in the classroom. The arrangement has been highly praised by Dr. Abe J. Davis, commissioner of health, who has said that the result will be closer understanding between private practitioners and public health physicians.

* * *

The Lawson General Veterans' Administration Hospital, Atlanta, is giving patients better treatment and teaching better medicine than any in the country. Praise for the 635-bed hospital came from Dr. Paul B. Magnuson, of Washington, D. C., the VA's chief medical director, prior to an all-day conference at the Henry Grady Hotel, June 25, where more than 30 physicians from the Southeast met to discuss medical programs in VA hospitals. Simultaneously, Dr. Magnuson announced that plans are "all drawn" for the \$9,000,000 hospital to be built by the VA on the site of the Briarcliff Road estate of Asa G. Candler, Jr. The director said "it won't be too long" before bids for construction of the hospital will be taken. He estimated the construction time at about two years. "There is a great shortage of doctors, especially specialists, and it wouldn't be possible for the VA or anybody else to hire on a full-time basis, all the doctors, nurses, and help we need," Dr. Magnuson said. "So we have enlisted the services of the highest type specialists in every field as consultants." The director added. "They're the cream of the crop. The main purpose of the conference, according to Dr. Magnuson, was to "see how we can get the most people well the fastest." Present at the conference were specialists from Georgia, Florida, Alabama, South Carolina, Tennessee, Mississippi, and North Carolina.

* * *

Dr. Exum Walker, Atlanta, announces the association of Dr. William W. Moore in the practice of neurologic surgery, at 133 Doctors Building, 490 Peachtree Street, N. E., Atlanta.

* * *

Dr. Thomas P. Waring and his wife, Dr. Ruth Moyer Waring, Savannah, announce the opening of their offices at the Oglethorpe Sanitarium, Savannah, for the practice of orthopedic surgery. Both physicians have long training in all phases of bone and joint surgery.

* * *

The Washington County Health Department, Sandersville, under the leadership of Dr. O. L. Rogers, health commissioner, with his assistants, is holding typhoid clinics in each section of Washington County, which had the reputation of being one of the worst infected in the State, is now one almost free of this scourge, for the purpose of immunizing both white and Negroes. Only one case was reported in 1948 and none is expected this year if every citizens will take the typhoid injections, which are given free.

* * *

Dr. Virgil B. Williams, Griffin, announces the opening of his office at 124½ West Poplar Street, Griffin, for the practice of general medicine and surgery. He graduated from University of Georgia School of Medicine, Augusta, and interned at Crawford W. Long Memorial Hospital, Atlanta. He spent his residency, after serving 33 months in the U. S. Army Medical Corps, including assignments in the Southwest Pacific, the surgery staff of Lowell General Hospital, Ft. Devens, Mass., and the station hospital at Ft. Belvoir, Va., in pathology and surgery at the University Hospital, Augusta. In addition, he spent a year at Lenwood Veterans Administration Hospital, Augusta.

* * *

Dr. M. E. Winchester, Brunswick, Glynn County health commissioner and administrator of the City Hospital, Brunswick, was guest speaker at the meeting of the Optimist Club, July 7. He discussed various matters

in connection with the City Hospital. He told the Optimists how much it costs daily to operate the hospital, and called attention to the fact that one of the big problems is the number of charity cases that come into the hospital from neighboring counties, and the need was stressed for non-resident fee.

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The Fulton County Medical Society held its dinner meeting at the Academy of Medicine, Atlanta, July 21. Scientific meeting: Dr. John W. Turner, moderator: "Classification of Lymphomas". Dr. Lee Foster; "Effects of Vagotomy on Peptic Ulcers and the Gastro-Intestinal Tract", Dr. C. A. Priviteri; Dr. William W. Bryan led the discussion.

* * *

The first annual meeting of the Georgia Heart Association will be held in Macon, September 16, at the Idle Hour Country Club.

Program will include luncheon and dinner meetings, with a scientific session in the afternoon.

Members of the medical profession are cordially invited to attend.

OBITUARY

Dr. George Harwood Collins, aged 31, Lumber City, died as a result of an automobile accident June 12, 1949. Dr. Collins was born in Kansas City, Mo., on September 12, 1917, the son of Kenneth L. and Helen Fletcher Collins. In 1947 he graduated with honor from George Washington University School of Medicine, Washington, D. C. He was secretary for Nu Sigma Nu fraternity; fellow of A. F. L. King Obstetrical Society; interned at Gallinger Municipal Hospital, Washington, D. C.; and served his residency at University Hospital, Little Rock, Ark. George H. Collins, Jr., 9-year-old son of Dr. Collins was killed in the accident with his father. Dr. Collins is survived by his wife, the former Miss Loretta Jenkins; two sons, John Jeffery and William Kenneth Collins, of Lumber City; his mother, Mrs. Helen Bodey, Holly, Colorado; two brothers and two sisters. Funeral services were held in Lumber City. The Rev. Maurice W. Thomas officiating. Burial was in Nowata, Okla.

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Dr. John Brady Jackson, aged 69, prominent Clarkesville physician, died at his home, July 3, 1949. Dr. Jackson was the son of the late Calvin and Adeline Jackson, of Habersham County. He graduated from the Atlanta College of Physicians and Surgeons, now Emory University School of Medicine, Atlanta, in 1902. Later he completed postgraduate work at The New York Polyclinic Medical School and Hospital, New York City. He had given outstanding service to rural medicine in Northeast Georgia for the past 46 years, always was a leader in community affairs. He was a member of the Georgia Legislature for two terms, mayor of Clarkesville for eight years, and past president of the Habersham County Medical Society. At the time of his death he was president of the Habersham Bank, chairman of the Clarkesville school board, and a deacon in the Clarkesville Baptist Church. He was also a member of the Habersham County Medical Society, the Medical Association of Georgia, and a fellow of the American Medical Association. Survivors include his wife, the former Miss Bernice English; three children, Ernest and George Jackson, Clarkesville, and Mrs. Julian Nicholson, Marietta; two grandchildren and two brothers. Funeral services were held at Clarkesville Baptist Church, with the Rev. Raymond Johnson officiating. Burial was in Clarkesville Cemetery, Clarkesville.

* * *

Dr. Joseph Render Anthony, aged 66, beloved Griffin physician, died February 15, 1949. Dr. Anthony was born in Griffin, Spalding County, September 12, 1883, the son of the late Dr. E. R. Anthony and Mrs. Addie

Wimbish Anthony. He graduated from University of Louisville School of Medicine, Louisville, Ky., in 1914. After a year of postgraduate work in New York City, Dr. Anthony began the practice of medicine in Griffin. He became surgeon for the Central of Georgia Railroad and for the Southern Railroad in 1918. For 10 years he was Spalding County physician. He was an active member of the Presbyterian Church. He was an honorary member of the Spalding County Medical Society, the Medical Association of Georgia, and a fellow of the American Medical Association. Because of poor health he retired from practice 12 years ago. Survivors include his wife, Mrs. Henrietta Goddard Anthony; two daughters, Misses Jo Anthony and Adelaide Anthony, of Griffin; a sister, Mrs. W. G. Cartledge, Griffin, and a brother, Dr. E. R. Anthony, Thomasville. Funeral services were held at Pittman's Chapel, with the Rev. E. P. Nichols officiating. Burial was in Oak Hill Cemetery, Griffin.

The Post-Graduate Committee of the Medical Association of Georgia, in cooperation with Emory University School of Medicine, has planned a post-graduate medical seminar to be held in Atlanta October 10-14.

All plans have been made with the view of helping the busy general practitioner of medicine obtain a good refresher course in a short time. Needless to say, such refresher courses are welcomed. Indeed, both Emory University School of Medicine and the University of Georgia School of Medicine have long cooperated with the medical profession of Georgia—through the Medical Association of Georgia and through the Georgia Department of Public Health—in the effort to improve medical knowledge and medical practice in this State.

All sessions of the seminar will be held in the lecture rooms, in the clinics and in the hospitals affiliated with Emory University School of Medicine.

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NEW BOOKS

Obstetric Analgesia And Anesthesia—Their Effects Upon Labor and the Child: by Franklin F. Snyder, M.D., Associate Professor of Obstetrics and Associate Professor of Anatomy, Harvard Medical School. 401 pages with 114 figures and 18 tables.

This book can be used to very good advantage by obstetricians, pediatricians, anesthetists, and general practitioners who have even a passing interest in obstetrics. It represents the most complete and unbiased evaluation of all agents in use today that can be found anywhere. Each agent is analyzed as to its: 1. potency in the relief of pain; 2. effect upon the fetus; and 3. effect upon the mother, especially upon the labor mechanism. You get modern, authoritative information on the advantages and disadvantages of various methods and various dosages under various conditions. In other words, you get specific help on how to select the safest and most effective type of pain relief for any given set of obstetric circumstances. Among the unique features

may be mentioned the original material on intrauterine pneumonia and the very complete discussion of scopolamine in obstetrics. Published by W. B. Saunders Company, 1949. Philadelphia and London. Price \$6.50.

* * *

How To Become a Doctor—Dentist, Veterinarian, Pharmacist, Optometrist, Chiropractor, Occupational Therapist, Hospital Administrator, Medical Illustrator, Scientist: by George R. Moon, Examiner and Recorder, University of Illinois. 131 pages, with illustrations. To read this book is like sitting down with someone and discussing a future career. It brings together for the first time in book form answers of young men and women planning for a career in medicine, dentistry, veterinary medicine, pharmacy, optometry, chiropody, occupational therapy, hospital administration, medical illustration and science. More than a catalogue it goes into a detailed discussion and analysis of the problems of finances, housing, outside employment, internships and residences.

Mr. Moon is unusually well qualified to provide sound and accurate information on this subject. In the past twenty years as a registrar and a member of admission committees, he has interviewed 20,000 prospective medical students—probably no one person in the world has met more students seeking advice regarding entrance into the medical professions. Written to aid would-be doctors in planning their training, evaluating or improving their chances for entry into a professional school and the probabilities for success after graduation, this book brings within easy reach of every prospective doctor accurate inside information—the result of twenty years' experience. Published by The Blakiston Company, Division of Doubleday & Company, Inc., 1012 Walnut Street, Philadelphia. 1949. Price \$2.00.

* * *

Medical Etymology—The History and Derivation of Medical Terms for students of Medicine, Dentistry, and Nursing: by O. H. Perry Pepper, M.D., Professor of Medicine, University of Pennsylvania. 263 pages. This new book is not a dictionary. It is an interesting and enlightening account of how and why medical words got to mean what they do. The "career" of each term is explained—its root and original meaning, changes in meaning that have developed through the ages, and often historical and biographical connotations that will very surely intrigue any man of medicine. You will really enjoy this book. We guarantee that it will provide you with pleasant and informative reading. And it makes a very valuable gift for the medical student, because it is broken down into sections according to subjects—in the order in which they are normally encountered in the curriculum. By using it the student can become familiar with roots and thus be able to work out for himself the meaning of newly-met words. Published by W. B. Saunders Company, 1949. Philadelphia & London. Price \$5.50.

* * *

Nutrition And Diet In Health And Disease, by James S. McLester, M.D., Professor of Medicine, University of Alabama, Birmingham. New 5th Edition. 800 pages. This New (5th) Edition represents a thorough revision. New uses of folic acid are explained. The discussion of water balance is complete and up-to-date. The new liberal diet for peptic ulcer is included, as well as the low-salt diet in congestive heart failure and the sodium-free diet in arterial hypertension. The explanation of vitamins and their use in one of the most complete to be found in any text-book today. This book is more—much more—than a mere discussion of dietotherapy. It does tell how to use nutrition in treating disease, of course, but it also describes nutritional requirements in health—the normal diet for adults and children, the

(Continued on Page XVI)

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1. Rackemann, F. M., in Cecil, R. L.: Textbook of Medicine, ed. 7, Philadelphia, W. B. Saunders Company, 1948, p. 539.

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(Continued from Page 364)

feeding of infants, diet and reproduction, etc. Yes this is a clinical work, in every sense of the word. The guidance you get here is direct, specific, immediately applicable to your practice. Menus are given—not for a day but for every meal for an entire week. In dietary prescriptions, quantities are given in household terms as well as in metric and standard measures. Every feature of this New (5th) Edition points to new, authoritative, really usable help on your nutritional problems. Published by W. B. Saunders Company, 1949. Philadelphia & London. Price \$9.00.

* * *

The Practice of Refraction, by Sir W. Stewart Duke-Elder, K. C. V. O., D.Sc. (St. And.), Ph.D. (Lond.), M.D., Ch.B., F. R. C. S., Hon. D. S. (Northwestern) Surgeon Oculist to H. M. the King; Director of Research, Institute of Ophthalmology, University of London; Ophthalmic Surgeon, St. George's Hospital, London. 316 pages, 216 illustrations.

The character of the book remains the same, but considerable new material has been added to this thorough revision. Among other things, myopia is considered from a new viewpoint; new knowledge of transient changes in refraction has been added and anti-eikonia is treated more fully; the description of the mechanism of accommodation has been brought up to date and a chapter has been added on anomalies of convergence; orthoptic treatment of muscular imbalance is viewed more critically. Among methods of examination descriptions of streak retinoscopy and velanoscopv have been added and the section on refractometry enlarged. Also the chapter on spectacles has become more useful by enlarged sections on the theory of best-form lenses, the effectivity and equivalence of lenses, and contact lenses. Published by The C. V. Mosby Company, 1949. 3207 Washington Boulevard, St. Louis 3, Missouri. Price \$6.25.

* * *

Pioneer Life in Kentucky 1785-1800, by Daniel Drake, M.D. Edited from the Original Manuscript, with Introductory Comments and a Biographical Sketch by Emmet Field Horine, M.D. 257 pages, with illustrations. The first edition of this book was published in 1870. It has been reprinted once. Its quality as a contribution to medical history is of the highest. With every new bit of information relative to Daniel Drake, his stature rises. He was one of America's greatest pioneer physicians. His two volume work "Principal Diseases of the Interior Valley of North America" is a medical classic. Daniel Drake was the first medical student of Cincinnati. He gave Ohio the name of Buckeye state. He was a professor in several medical schools, and the founder of an early medical journal. Published by Henry Schuman, 1948. 20 East 70th Street, New York 21, New York.—*The Journal of the American Medical Association*, July 23, 1949.

* * *

Atlas of Roentgenographic Positions, by Vinita Merrill, formerly educational director of Picker X-ray Corporation. This atlas, in two volumes, should be most helpful both to experienced and inexperienced physicians and technicians who wish to develop better positioning technic, and therefore better diagnostic films. Seven hundred and eight pages, with over 1500 illustrations, this atlas published by C. V. Mosby Co., St. Louis, costs \$30.00, but it is worth it.

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DISEASES OF THE CERVIX

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The cervix with its two types of epithelium, its deep seated compound racemose glands, so easily exposed to infection and trauma, is an ideal place for the entry port of organisms and the development of a chronic, deep seated infection which often defies even the most vigorous treatment. In the normal cervix the canal is lined by a single layer of epithelium which is bathed in an alkaline secretion and is exposed to relatively few organisms. The vaginal portion of the cervix, on the other hand, is covered with a stratified squamous type of epithelium usually exposed to the acid vaginal secretions and to an enormous variety of organisms. These two types of epithelium usually meet in abrupt manner at the external os, but often, due to congenital defects, childbirth, instrumentation, operation or infection, the columnar epithelium of the endocervix becomes exposed to the secretions and flora of the vagina. When an eversion exists the endocervix is turned out and exposed to this foreign habitat. These factors add to the ease with which invading

organisms are able to penetrate the deepest structures of the cervix and set up and maintain a chronic inflammatory process. Irrespective of whether the invading organism is a gonococcus, streptococcus, staphylococcus or escherichia coli, in the chronic stage the histopathology and symptomatology are identical.

The value of routine pelvic examination does not come within the scope of this presentation. A diseased cervix, however, is one of the pathologic lesions most frequently encountered in the pelvis by the physician. Great stress has been placed in recent years on cancer and particularly cancer of the female genital tract, notably of the cervix. Much has been written of the early diagnosis of cancer, and the various methods used for its early detection advocated. Routine vaginal examination, the Schiller test, vaginal smears stained by the methods of Papanicolaou, and cervical biopsy, alone or in combination, all have their proponents. The value of these methods is beyond the scope of this presentation, but attention is called to the fact that only a comparatively few papers in the postwar years have been devoted to the value of treatment of benign lesions of the cervix in prevention of carcinoma of the cervix.

Ayre, (Am. J. Obst. & Gynec.) in his theory of the origin of carcinoma of the cervix, stresses chronic disease of the cervix, disturbed nutrition, lowered thiamine, and continued low stimulation of the cervix by estrogen as being the provocative agents. Whether one believes that chronic irritation is an etiologic factor in the production of carcinoma of the cervix or not, he will not

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contest the fact that chronic disease of the cervix does produce symptoms which may be mild or severe in nature, often requiring persistent, even radical, therapy for relief.

Symptomatology

Whether or not chronic cervicitis is a precursor of malignant disease of the cervix, its importance lies in the fact that it can so mimic other pelvic conditions that often ill advised laparotomies with excision of some or most of the pelvic organs are performed, when the cervix is the etiologic factor in the production of the symptomatology, and not the abdominal organs removed. This not only leaves the patient with little or no relief of her symptoms, but often in a condition that is worse than existed prior to surgery. Also too often though the cervix is correctly diagnosed as the etiologic factor in the production of the patient's symptoms therapeutic measures are used which are not particularly adapted to the case and which not only fail to benefit the patient but sometimes cause sequelae that leave her worse than she was prior to treatment. The same can be said of improper follow-up of therapeutic measures applied to the cervix, and of ill-timing in the application of therapeutic measures.

Once a chronic infectious process has been established it will produce a variety of signs and symptoms; leukorrhea, backache, unilateral or bilateral pelvic pain, irritable bladder or sterility and though, rarely, may be a focal point for distant lesions as infectious arthritis or iridocyclitis.

Leukorrhea most often arises from a diseased cervix, and aside from staining of the underclothes, and occasionally pruritus, there is little or no discomfort. If, however, the infective process in the cervix continues unarrested there is an extension into the lymphatics and the symptomatology produced depends upon the direction of spread.

The cervical lymphatics drain in four directions, anteriorly, into the base of the bladder; laterally, into the parametriae; posteriorly, into the utero sacral ligaments, and cephalad, into the lymphatics of the myometrium. Should the infective process involve the lymphatics of the uterosacral ligaments, dyspareunia and/or backache may result. Although backache is a common complaint in the female, and may be due to a number of extragenital causes, clinically we are easily able to ascertain whether or not the cervix is the cause of the patient's backache. By placing the examining finger posteriorly to the cervix, and lifting the cervix towards the symphysis pubis an attempt is made to reproduce the patient's pain. Should this maneuver be successful in giving the same type of pain, in the same location that she complained of in her history, then we are certain that the patient's cervix is responsible for her backache and that the proper therapeutic procedure applied to the diseased cervix will produce amelioration of symptoms.

Chronic cervicitis is not infrequently the cause of bilateral or unilateral pelvic pain and this pain may be of such a degree and intensity that it might easily be confused with the pain of chronic bilateral adnexitis. It is a lymphatic extension of the infection of the cervix into the lymphatics of one or both of the parametria that is the causal agent in the production of pain in these patients. In attempting to determine how great or how little a part the cervix plays in the production of pelvic pain, we usually place the examining fingers first into one lateral fornix and then into the other, and by pushing the cervix to the contralateral side of the pelvis we try to reproduce the patient's pain. If the pain is on the right side, the cervix is pushed to the left and vice versa. Again it is important not only to ascertain whether pain is produced, but whether it is the same pain complained of

in the patient's history. If we are able to reproduce the same pain in the same location, with the same radiation, and there is an absence of palpable diseased masses in the adnexae, then we are fairly certain that the patient's pain is due to cervical and not adnexal or intra-abdominal disease. If this maneuver fails to reproduce a patient's symptoms, then they are certainly not due to cervicitis. As a general rule it can be definitely stated that in the absence of palpable lesions in the adnexae, one's ability to reproduce the patient's pain by motion of the cervix means that the cervix is the etiologic factor.

There is a relation between chronic cervicitis and trigonitis. Winsbury White in his experiments proved this by the injection of India ink and organisms into the cervix. He found that the lymphatics of the cervix drain directly into the bladder in the region of the trigone and concluded that "cystitis is a constant companion of cervicitis, and one experiences that it is extremely difficult to get a satisfactory response to the treatment of cystitis which is accompanied by a neglected cervix". It is important that numerous cases of irritable bladder have been relieved by local therapy only to recur when this treatment was discontinued. Proper treatment of infected cervices in these cases not only produces relief but cures.

Definite proof that chronic cervicitis can produce and maintain the symptomatology described is offered by the following facts: We have seen many cases who have had either salpingectomy, salpingo-oophorectomy, or bilateral salpingo-oophorectomy and subtotal hysterectomy complaining of the same abdominal pain that they experienced before operation, or else complaining that although the previous operations had resulted in some relief there was still enough pain present to make them very uncomfortable. Examination of these cases often revealed a cervix that was badly diseased and

that had received inadequate or no treatment at the time of operation. Appropriate therapeutic measures applied to these cervices in the vast majority of cases relieved all symptoms. This does not mean that laparotomy was not justified in all cases, but it does prove that the cervix when diseased can and does produce symptoms that are uncomfortable, and bear a constant and similar character to those produced by disease of intra-abdominal organs, and that these symptoms will not be relieved unless the cervix is properly cared for.

Though not a symptom but a clinical entity, sterility may be caused by cervicitis and should be discussed under this caption. As the result of the infection there is a tenacious mucus plug in the cervix which is often not only detrimental to the ability to sperm, but is actually so thick as to preclude any possibility of sperm penetrating it. It has been our experience that chronic cervicitis alone or in combination with other factors has been one of the more frequent etiologic agents encountered in sterility and following reduction in the amount of infection, or clinical cure, fertility is increased. We have obtained more results by curing an endocervicitis with canterization than we have by attempting to cleanse the cervical canal mechanically, by the use of chemotherapeutic agents or antibiotics or the use of chemicals or enzymes.

Treatment

Irrespective of whether cervical carcinoma does or does not arise as a result of chronic cervicitis, we do know that if mild cervical infection if left untreated will gradually produce hypertrophy and hyperplasia of cervical tissue, and will spread by way of the lymphatics to contiguous structures and produce any or all of the annoying and debilitating symptoms described previously. Furthermore, the longer an infected process remains in the cervix the

greater the degree of hypertrophy and hyperplasia and the more radical the therapeutic measures necessary to produce cure, therefore all cases of cervicitis should be treated vigorously, for appropriate therapy applied early results in less disability, less discomfort, and less radical surgery than the patient will have need of in the future.

There are various methods of treatment advocated for the cure of cervicitis; antisepsics, such as iodine, mercurochrome, silver nitrate, merthiolate, etc., have all been applied locally or injected into the cervical canal or cervix itself in an effort to produce cure. As the infection is always deep-seated, and beyond the reach of these drugs, we believe that this type of treatment is not only ineffectual but time consuming to both physician and patient, and futile. Caustics such as Philo's paste have been used and have their advocates, but these are few. The larger number of strictures and the small number of cures resulting from this type of treatment lead us to condemn it. Copper ionization has been championed by others, but this method of treatment has never received much support or use except by a small minority of gynecologists. Sulfa drugs and antibiotics are of value in acute cervicitis but their efficacy in chronic cervicitis is questionable. On our services we rely upon the cautery, surgery, and occasionally, in selected cases, conization; and when needed, hysterectomy, for the cure of chronic cervicitis. The degree of success attained by the use of any or one of the latter methods depends upon the proper type of procedure as applied to the proper type of cervix.

There are two basic factors that guide us in our choice of procedure: first, the degree of infection as evidenced by the amount of hypertrophy, hyperplasia and cystic change in the cervix; and second, the degree of laceration, i. e., whether the laceration has been extensive enough to produce

marked eversion or not. The site of the laceration, or whether it is unilateral, bilateral or stellate has little or no influence on the choice of procedure to be used.

A. *The Cervix Without Eversion.* The cervix which is without eversion but has a mild erosion with little or no endocervicitis requires only the destruction of the erosion by means of the actual cautery or coagulation with the ball tip of the conization apparatus. Should endocervicitis be present also, cauterization of the cervical canal with a very fine point cautery, care being taken not to cauterize too deeply or keep the cautery blade in contact with the tissues for too long a time, will produce the desired results. If only a mild amount of hypertrophy, hyperplasia and/or Nabothian cyst formation exist in addition to the endocervicitis, i. e., the cervix is only slightly enlarged over its normal size, then deep cauterization of the cervical tissue, and destruction of the Nabothian cyst with the cautery point is all that is necessary. However, in cervices of the same type, with a large amount of hypertrophy, hyperplasia and cystic degeneration as evidenced by a cervix which is one and one half to three times larger than normal, cauterization is of little or no value and here a Sturmdorf type of operation or conization of the cervix are the most effective measures. Occasionally in this type of cervix hysterectomy is necessary.

B. *The Cervix With Eversion.* A cervix that presents an eversion must be attacked in a different manner. Cauterization and conization are ineffective in this type of lesion and surgery will correct the underlying disease. For the cervix with eversion and no hypertrophy, hyperplasia or cystic change trachelorraphy is the procedure of choice. For the cervix with eversion and hyperplasia and cystic change, but with the latter limited to the distal half of the cervix, low amputation (Schroeder operation) is

advocated. In the cervix with eversion, hypertrophy, hyperplasia and caustic degeneration throughout, high amputation (Hegar) is imperative. Of course, depending upon the co-existing disease, the age of the patient, vaginal or abdominal hysterectomy is resorted to in a number of cases.

We mention this because though we have described several methods of dealing with an infected cervix it is to be emphasized that in the majority of cases of cervicitis the pathologic changes can be easily handled by means of the electric cautery. Only rarely is a young woman seen who complains of such discharge or pain or backache or dyspareunia, that deep cauterization will not relieve her of her pain until she has completed her childbearing function and the uterus can then be removed if symptoms persist. Fortunately in the majority of cases where a marked, chronic cervicitis is present, many symptoms such as polyps and hypermenorrhea, beginning or second degree prolapse of the uterus, tumors of the uterus, etc., are also present, so that total hysterectomy can be advocated for more than cervicitis alone. It is rare indeed in our private or ward services that plastic operations about the vagina and cervix, with or without uterine suspension, are advised or performed.

Time of Application of Therapy

In the treatment of cervicitis there is a definite period in the menstrual cycle during which it is best and safest to apply therapy. No type of therapy, be it cauterization, conization, or surgery should be used within seven days of expected menstrual flow, for there is great danger of spreading the infection at that time to the tubes and/or ovaries or to the peritoneum, and a greater danger of post-therapy hemorrhage. We prefer to institute therapy five to seven days following the cessation of the menstrual period. In this manner compli-

cations are kept to a minimum and it is very rare that pelvic infection or post-therapy hemorrhage ensues if this precaution is observed.

Stricture of the Cervix

Unless great care is taken as to how much tissue we cauterize, or how much carbonization we produce by conization or coagulation or how accurately we approximate tissues following surgery on the cervix, there is a likelihood of the subsequent development of cervical stricture, an entity which often leaves the patient in a much worse condition than she was prior to therapy and in some cases may even necessitate another operation. In order to lessen this likelihood, it has been our practice to pass a small sound or Hegar dilator through the cervical canal at anytime from six to eight weeks following therapy and again one month subsequently, in an attempt to break up any small synechia which might be present and which might eventuate in a cervical stricture, if left undisturbed. We believe that this precautionary procedure to be a very important and necessary part of the after care in the treatment of cervicitis, for we have seen strictures result from irradiation, cauterization, conization, coagulation, low amputation, high amputation, trachelorrhaphy or Sturmdorf procedures. We do not believe that the type of procedure used on a cervix has as much to do with a stricture as a failure to follow the case properly with sounding and dilatation. We have become so conscious of cervical strictures that the passage of a small Hegar dilator or uterine sound is a routine procedure in the examination of all patients, except of course one in whom pregnancy is suspected. Cervical stricture is a condition which may not only produce unpleasant symptoms in the female, but may produce very serious complications or sequelae. There is often puddling of secretions proximal to the stricture

which results in an annoying, profuse and constant discharge. Not infrequently the stricture may be almost complete and produce dysmenorrhea or it may be complete and the menstrual blood be retained producing hematometria, hematosalpinx, a mild chemical peritonitis, endometriosis or pyometria. Other annoying symptoms that may result from surgical stricture are menorrhagia, amenorrhea and sterility.

The treatment of cervical stricture depends upon the degree of stricture and the response of the stricture to office dilation. Frequent office dilation with a small Hegar dilator will cure a number of cases of stricture. In other cases the stricture defies dilation in the office, and dilation under anesthesia and the insertion of a glass stem pessary usually overcome the difficulty. However, in a larger number of women, where the stricture is extensive, occupying a major portion of the cervical canal, long standing, tough, resistant and impervious to the passage of a sound or probe, hysterectomy, either abdominal or vaginal, must be resorted to to produce relief.

The Cervical Stump

Many functions have been attributed to the cervix. It has been said that the cervix is necessary for the support of the uterus and vaginal canal. If the presence of a cervix militated against prolapse of the uterus, then we would see very few indeed and, furthermore, amputation of the cervix is one of the steps in the Manchester or Fothergill operation originally devised for correction of prolapse of the uterus. We do not believe that the cervix or any part of the cervix is necessary for the support of the vagina or uterus. If careful approximation of the normal supporting structures of the uterus are properly carried out following vaginal or abdominal hysterectomies, and if these ligaments have the inherent tensile strength that they should have, there

will be no greater prolapse of the vaginal vault in cases where the cervix is removed than where it had been left *in situ*. We have seen many cases of prolapse of the cervix and vaginal vault that have followed supravaginal hysterectomy and very few following total hysterectomy.

Others argue that secretions from the cervix are necessary for the proper functioning of the vagina as a sexual organ and that removal of the cervix lessens or removes the probabilities of orgasm. No argument could be more fallacious. Following the large number of hysterectomies performed on our service, we have not seen any woman who is not able to satisfactorily accommodate her mate or who, if she had orgasm prior to total hysterectomy, did not have orgasm after. As a matter of fact, the retained cervix is a frequent cause of dyspareunia and where prior to removal sexual intercourse was impossible, not desired or without climax, removal of the diseased cervical stump resulted in a complete reversal of the patient's attitude and reaction.

Others argue that removal of the cervix at time of hysterectomy produces a shortened vagina. The technic used on our service actually results in a vagina that is longer than existed prior to hysterectomy. Many, at the time of hysterectomy, perform vaginal plastic operations upon the cervix or conization of the cervix. Others "core out" the cervix from above with a knife. These procedures are of little or no value at the time of hysterectomy; when hysterectomy is indicated in the human female, the whole uterus should be removed either abdominally or vaginally. If because of extreme technical difficulty or because of the patient going into shock on the operating table, total hysterectomy is not feasible, then subtotal hysterectomy should be performed and the patient reoperated upon within six months to a year and the cervical stump

removed vaginally. Occasionally also a cervical stump is left because the operator wishes to leave a little of the endometrium above to allow the woman the "privilege of menstruating". A woman has a uterus solely to harbor a conception. There are no poisons lost from a woman's blood stream when she menstruates, nor will the absence of menstruation mean "rushing of blood to the head", or a change in the sexual desire or function. Such a procedure in the light of modern physiology, pathology and psychosomatic studies is based on erroneous philosophy rather than scientific fact. In patients who are to have hysterectomy, the proper preoperative instruction of these patients as to the function of the uterus eliminates the theoretical change in psyche supposed to occur following the cessation of vaginal bleeding.

To reiterate, the only hysterectomy that should be performed in this day and age, except under very extenuating circumstances, is a total vaginal or total abdominal hysterectomy. There should be little or no difference in the mortality or morbidity from total hysterectomy as compared to supravaginal hysterectomy and such procedures as cauterization of the cervix, conization of the cervix, cervical plastic or "coning out of the cervix", at the time of supravaginal hysterectomy should be relegated to antiquity. The same lesions found in a cervix with an intact uterus are found in the cervical stump. They develop erosions, cervicitis, hypertrophy, hyperplasia, polyps, carcinoma, endometriosis, stricture and fibroids, and produce pelvic pain, leukorrhea, bloody discharge, dyspareunia, backache, urinary discomfort and bearing down pains. Patients who have had supravaginal hysterectomies and present themselves complaining of any of these symptoms listed should be carefully examined as described previously, even to the passage of a sound, for often in the passage of a sound

in a cervical stump, we are rewarded with the finding of a stricture and occasionally empyema of the cervix. If the diseased process of the cervical stump is minimal, simple cauterization at times gives excellent results. However, the safest and best procedure is to remove the cervical stump, vaginally. We have removed a total of 190 cervical stumps with low morbidity and no mortality, and have used the vaginal approach in all cases except two; there were no fistulas or cut or ligated ureters as a result.

All patients except a very few have been completely relieved of their symptoms. In many the preoperative symptom was that of intraperitoneal pelvic disease, though the patients had previously had all intraperitoneal female organs and appendix removed. In all cases reproduction of the symptomatology was effected by motion of the cervix. We need no better proof that a diseased cervix can and does produce symptoms that are not only annoying, sometimes severe, but often mimicking lower abdominal disease.

Conclusions

1. Disease processes in the cervix may produce little or no symptoms and, though sometimes serious in nature, can be detected only by routine vaginal examination.
2. Disease processes in the cervix at times produce annoying or even debilitating symptoms, which may mimic intraperitoneal disease.
3. A method of differentiating symptoms produced by the cervix from those produced by other organs has been described.
4. Some of the fallacies regarding the cervical stump have been discussed.
5. The value of total hysterectomy has been emphasized.
6. The pathologic changes encountered in the cervical stump and symptoms produced thereby have been evaluated.

THE NORMAL ELECTROCARDIOGRAM AND ANGINAL SYNDROME

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Atlanta

It is irksome to those of us appreciating the usual constancy of the electrocardiogram to hear the frequent objection that someone went to his physician, was told that he had a perfectly normal electrocardiogram and next day died suddenly of heart disease. Such an attitude implies extravagant belief in diagnostic machines. Apparently it is possible to have an essentially normal tracing just prior to catastrophe, and the physiologic (rather than purely morphologic) basis of anginal syndrome makes this plausible.^{1,2} However, careful analysis of tracings from patients with complaints pathognomonic of coronary insufficiency more often reveals minor alterations or defects which deserve acknowledgment. These may be: lowered voltage of QRS and/or T waves, intraventricular conduction defects, flattened or slightly depressed ST segments, and premature complexes precipitated by exertion.^{1,2,3} It is not desirable to attach undue significance to minor peculiarities or defects seen in the records of many healthy persons and such a practice, which might lead to imposed cardiac neurosis, is to be deplored.^{4,5} Nevertheless, when the dire state of vascular insufficiency of the heart is suggested from history and clinical concomitants, accrediting of minor damage is justified. If the patient lives long enough, these changes can be seen to progress to undeniable signs of disease. Especially when one has the opportunity of comparing the patient's electrocardiograms over months or years, a trend toward eventual coronary accident may be discerned. For

as long as the person remains healthy or there is no intercurrent hypothyroidism, anemia or deficiency state, his sequential electrocardiographic signatures can be expected to remain impressively identical, at least during the period of maturity and sometimes even into old age.

The classical symptoms of angina pectoris are readily convincing, and often the electrocardiogram is conclusive. Furthermore, in appraising a merely suggestive electrocardiogram or when angina is atypical, there are a number of disposing clinical points. The heart sounds may be of poor quality or distant in the absence of emphysema. Left ventricular thickening may be evident by fluoroscopy in spite of normal blood pressure. The complaint may be single and not multiple as in psychoneurosis. The pain should not radiate to the back. Family history may indicate the likelihood of similar disease. The patient's wrists may be thick. He may have arcus semilis at 40 with soft peripheral arteries. There may be premature greying. Concurrent diabetes mellitus is strongly suggestive. Other mediastinal disease must have been ruled out. In women the lack of hypertension contradicts anginal syndrome except in the senile. The fear-ridden patient with pseudoangina urgently needs wholehearted reassurance. But the formidable distress may aggravate anxiety manifestations, and the disease may be present in combination with psychoneurosis. The fact that a patient has complained of chest pain limited to the lower left precordium, becoming substernal only after a physician had explained typical angina, or that the agog individual is about to consummate a marriage of questionable propriety, does not adequately assure the doctor that all is well.

It is debatable how much importance should be attached to the general character or form of the patient's tracing. At any

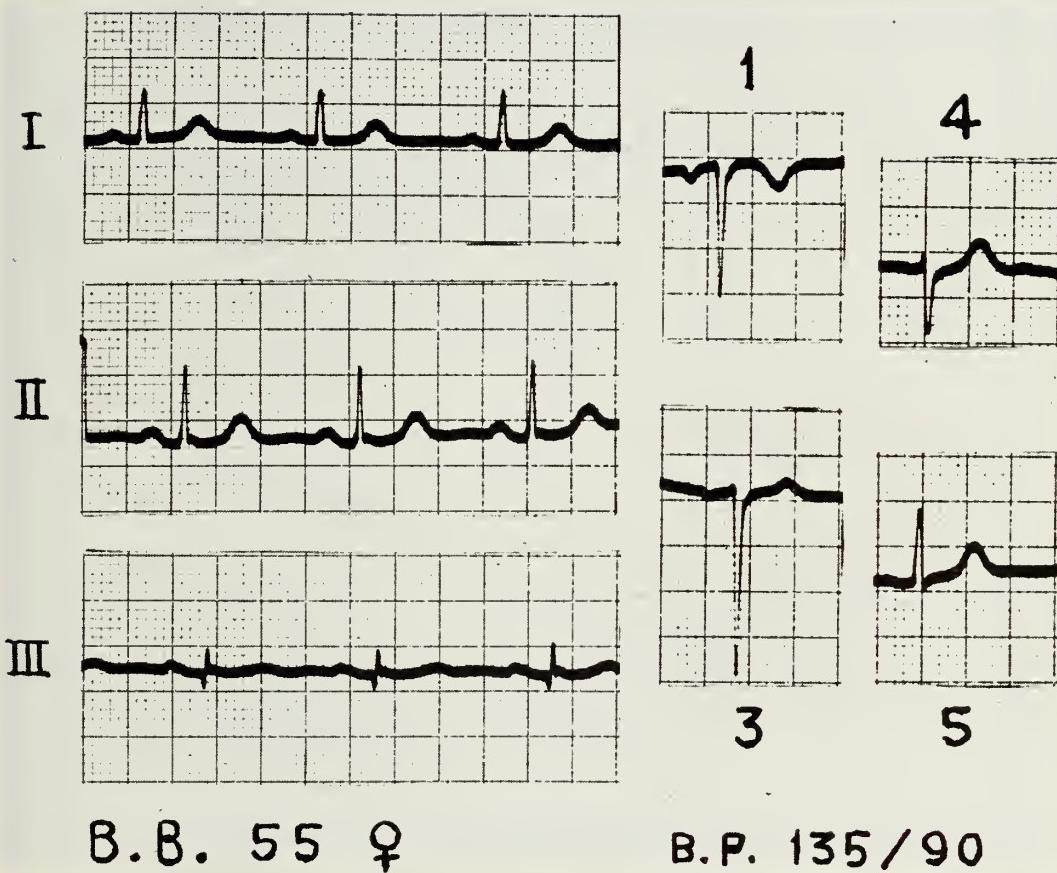


Figure 1. B. B. 55 (woman). To show flattening or sagging of ST segments in an otherwise normal tracing. Patient has anginal syndrome clinically.

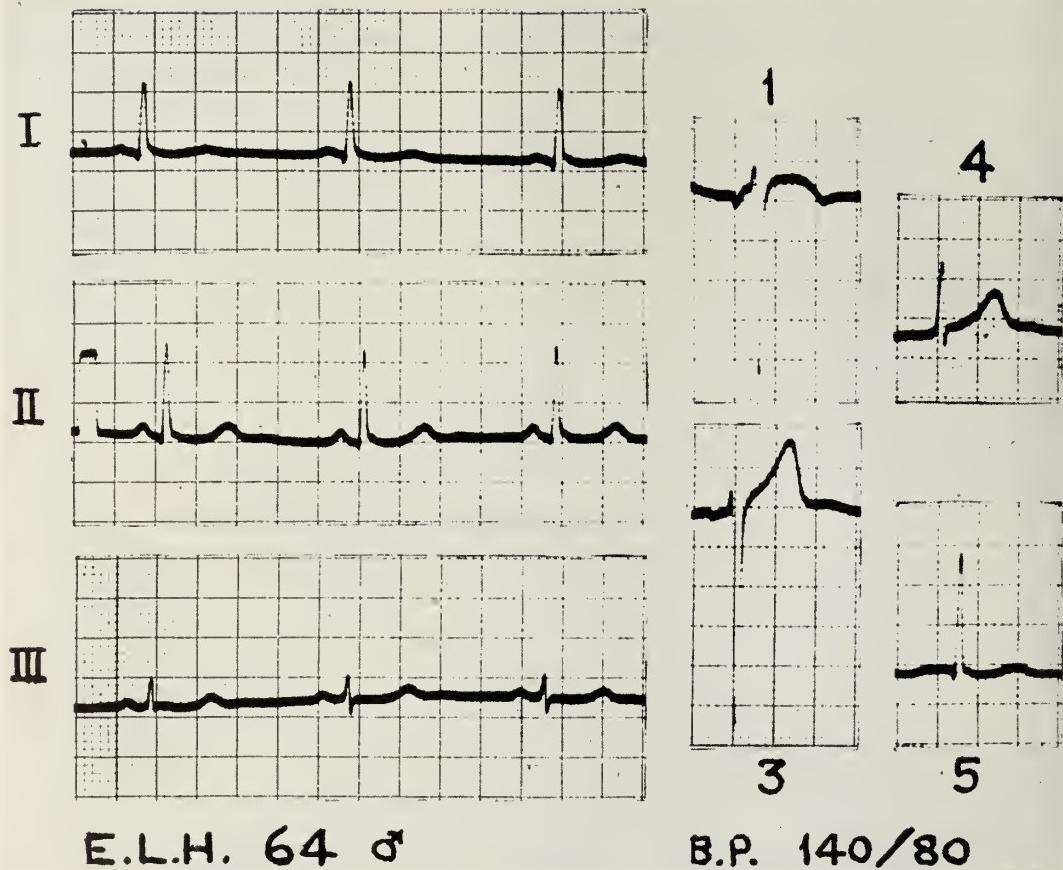


Figure 2. E. L. H. 64 (male). Typical anginal distress. The low ST-T in Lead I and V₅ is the obvious abnormality, but ST₂ & V₃ are also flattened.

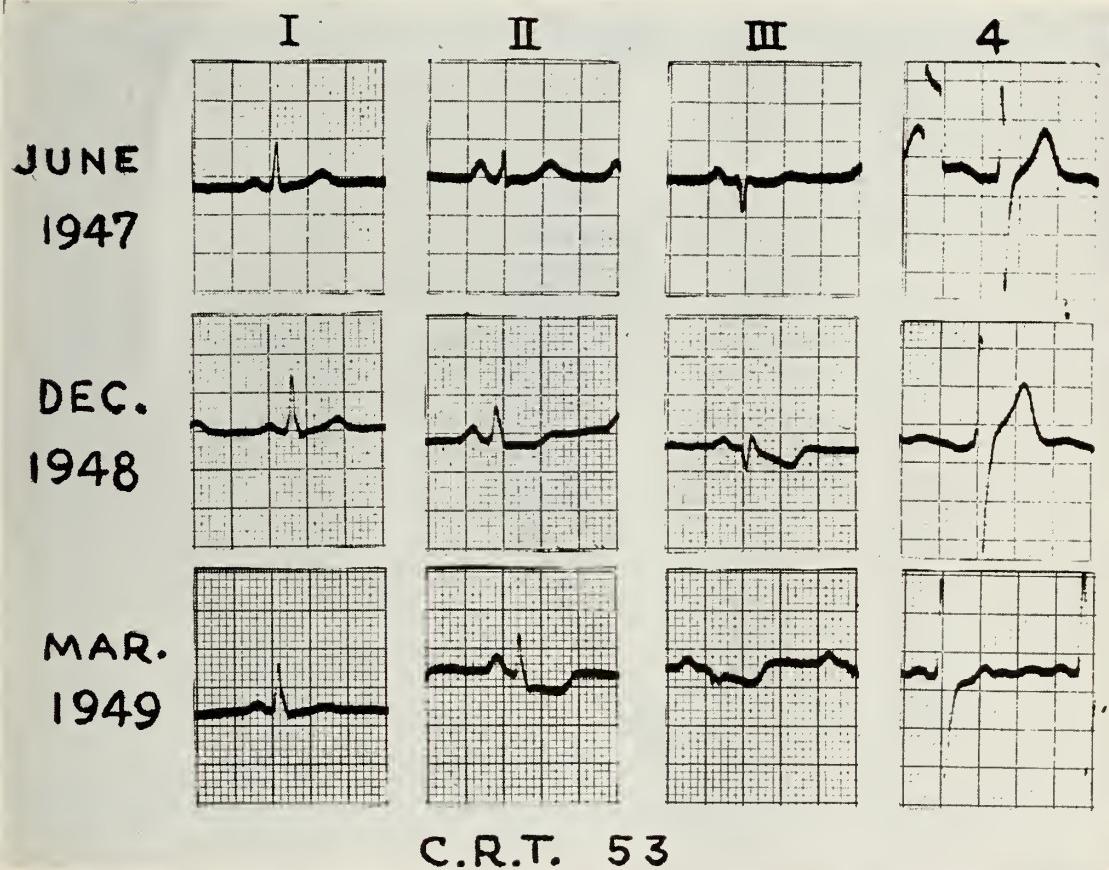


Figure 3. C. R. T. 53 (male). In the initial tracing, the only deviations from the norm are slurring of QRS_2 & 3 , flattened ST_2 & 3 , left axis deviation, as well as enlarged P_2 . Progression of these changes is seen after $1\frac{1}{2}$ years (widening of QRS , depression of ST segments, inversion of T_3 ; and in less than 2 years myocardial infarction (posterior) has occurred.

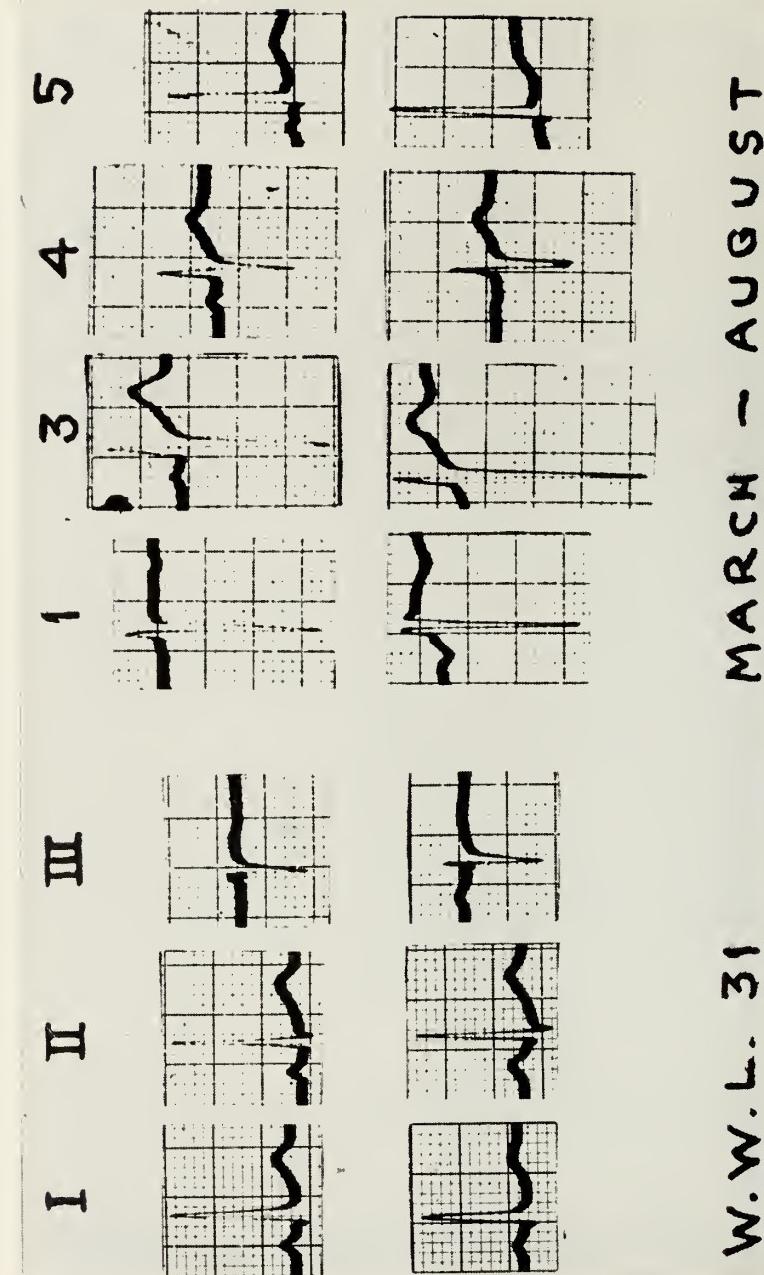


Figure 4. W. W. L. 31 (male). The second record was taken a few days prior to fatal coronary seizure. Note (in 5 months) lowering of ST-T₁ & 2 and similar modification in precordial leads. Otherwise the pattern generally is the same.

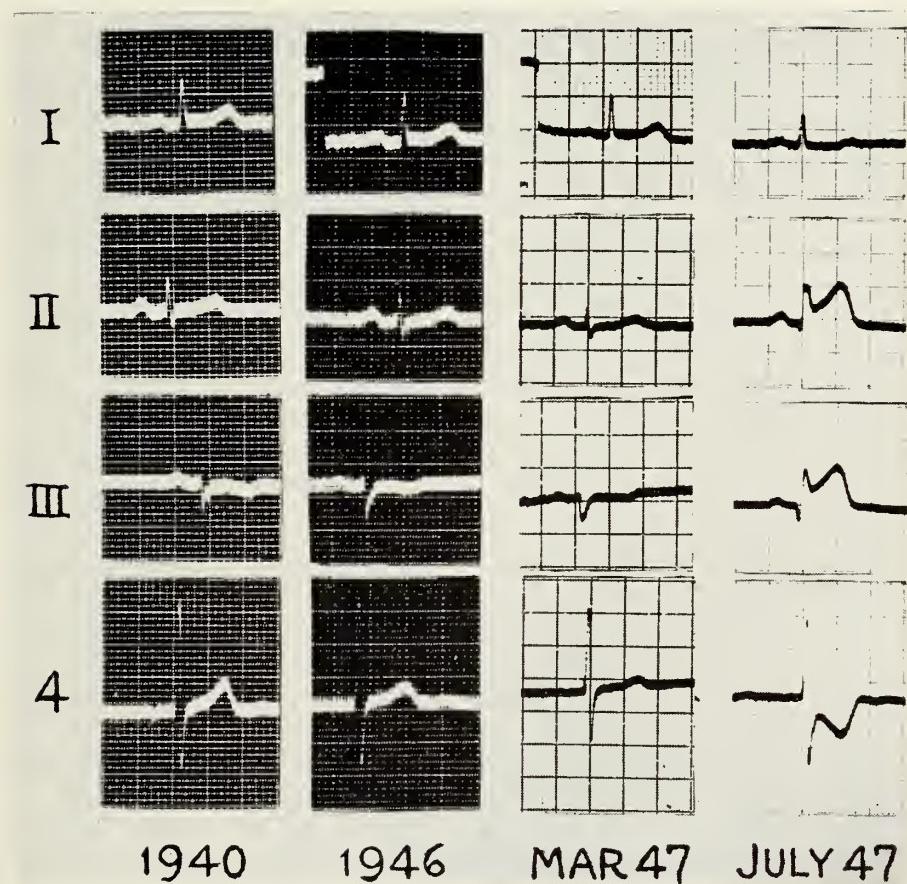
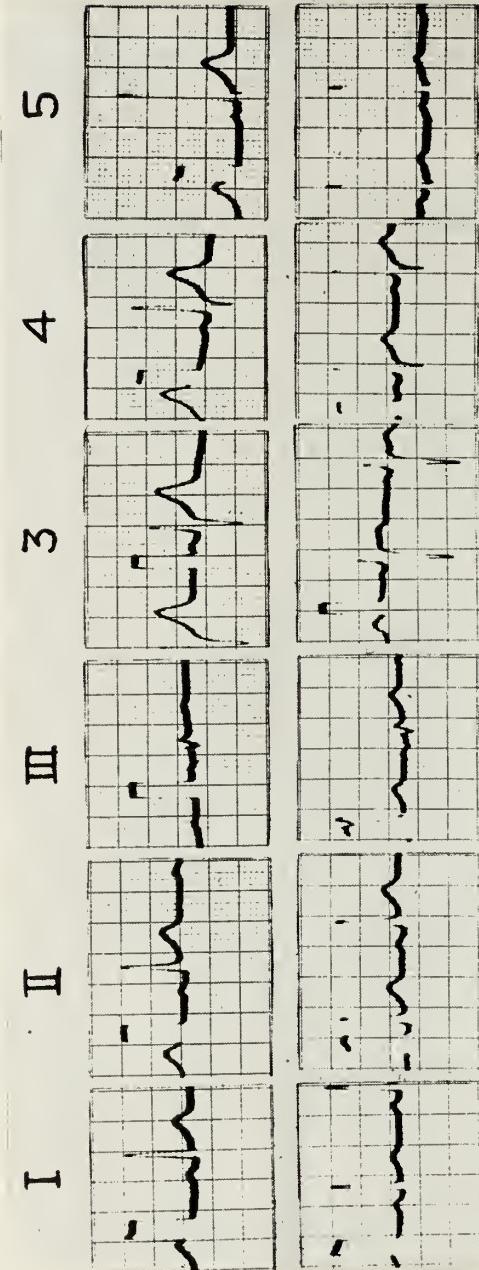


Figure 5. C. W. R., 63 (male). The fatal posterior myocardial infarction was preceded by attenuation of the earlier pattern 4 months prior to death, and even 1 year before there was some waning of T waves.



C.L.D. 50 JUNE 14 AND JULY 1

Figure 6. C. L. D., 50 (male). The top record is generally of good form, but QRS_3 is slurred; ST elevations are as often found in healthy persons; R_5 is over-tall. The second record (2 weeks later) would not appear especially abnormal unless compared with the first. The waning of ST-T throughout is quite evident. Fatal coronary accident occurred several days later. Angina had not appeared until the time of the second tracing.

rate, many persons who remain well do show what may be recognized as a youthful, vigorous or "healthy-appearing" record, with complexes of calligraphic outline. There are often slight elevations of ST segments (preceding good T-waves) in one or more of the limb leads.

Some have advised methods to bring out potential changes of coronary disease in passable electrocardiograms, the effort or anoxia tests.⁶ These carry the danger of precipitating acute, and possibly fatal, coronary insufficiency, and are not helpful unless positive. Demonstration of coronary stigmas by epinephrine injection is also hazardous.⁷ Even if coronary dilatation is attributed to this hormone, associated circulatory reactions may result in relative coronary deprivation.

Conclusions

1. Angina pectoris must be diagnosed from the whole picture (holistically), and chiefly from history. The syndrome may be evident clinically when the electrocardiogram is ostensibly normal but, as a rule, scrutiny may reveal minor defects consistent with the clinical impression.

2. Serial tracings prior to eventual infarction may show predicting changes, sometimes merely an attenuation of the continuing personal pattern, without coronary stigmas *per se*.

3. While personal defects in "healthy" tracings should not impose, through the physician, cardiac anxiety and neurosis, awareness of slight significant changes may reinforce preventive limitation and treatment; and from a didactic standpoint may modify the impression of the frequency of normal records preceding unexpected disaster.

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THE PROPER SELECTION OF A DIGITALIZING DRUG

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Information obtained from reliable sources¹ indicates that a great deal of confusion exists today when selecting a digitalizing drug. Approximately ten years ago it became quite prevalent to switch from the use of digitalis leaf to the glycosides, especially digitoxin, and within the past year or two there has been a marked tendency to readopt the leaf preparations.

What factors brought about the initial change? In order of effectiveness I list the following: (1) drug house detail men, (2) an inherent desire for changing remedies, (3) our modern age of speed and simplification, (4) confusion as to the changing standards of potency for digitalis leaf, and finally (5) the actual need for other drugs.

Although the actual need for new preparations is listed last it should not be construed that there has been and is no need for digitalizing preparations other than the whole leaf.

Digitalis leaf is far from being a perfect drug. There is apt to be marked difference in potency from brand to brand, and even in the same brand from time to time. The reason for this is that digitalis leaf is a mixture of the glycosides, and strength must be determined by inconsistent methods of bioassay. Further, digitalis leaf is not a rapidly acting drug. It requires approximately six hours for full effect even when given intravenously. In addition, if an

effort is made to give a large initial oral dose for more rapid effect, gastro-intestinal irritation frequently results from local action. However, digitalis leaf has one tremendous advantage, and that is it is a time-honored and time-tried drug having been used by cardiologists and general practitioners in all varieties and states of heart disease. Its limitations are very well known.

There are several important points to present prior to consideration of the cardiac glycosides. It is of paramount importance to remember that any digitalizing drug is a toxic drug. The average physician cannot indiscriminately subscribe to the results of investigative work emanating from a large medical center, because these workers are able to follow patients more closely and control them more readily than can the average busy practitioner. Even with good assistance difficulties might arise.

There are four significant characteristics² in which digitalis preparations differ—(1) potency, (2) absorption, (3) speed of action, and (4) speed of elimination. These are textbook differentiations, but from the practical standpoint in the selection of a preparation the physician must ask: (1) How dangerous is it?; (2) How fast will it act and how rapidly will it be eliminated?; (3) And most important, how much experience has been acquired in its use?

In the appraisal of a digitalizing drug too much significance must not be placed on its effect on fibrillators. This is the most favorable group for results with any digitalis preparation, and does not give an accurate comparative index for action under other circumstances.

The advantages of the glycosides² are: (1) smaller amount of material needed and therefore a lessened chance for gastro-intestinal irritation; (2) gravimetric rather than bioassay method for measuring strength; (3) wide range of duration of action and a

sufficient number of preparations to choose from for the action desired; (4) the psychologic advantage of abandoning the name digitalis.

Since many glycosides are becoming available for use, thorough study must be made before selection of a particular one as the one of choice.

Oral Preparations

Digitoxin—This is the one in most widespread use and the most discussed. Gold³ can be adversely criticized for apparently being a bit too enthusiastic and over-simplifying the use of this drug. Others, on the other hand, apparently unjustly criticize the drug because they have employed it in large initial dosage for speed when speed was not essential, or expected total dosage to be too exact a figure.

The action of digitoxin is more nearly like digitalis than that of any of the glycosides.

The advantages of digitoxin³ are: (1) it is apparently completely absorbed, (2) it may be given at a single dose if the patient has not had digitalis recently, and (3) it seldom causes nausea after a large initial dose.

A large initial dose has the advantage that total optimum therapeutic effect may be obtained a few hours sooner. It is remarkable how often the stated 1.2 mg. needed initially proves to be the correct dose.

On the other hand, this procedure has obvious disadvantages. A large single initial dose endangers an individual with increased susceptibility and sensitivity⁵ and, also, frequently it is impossible to know for certain whether previous digitalis has been received. The speed advantage over digitalis combined with mercurial diuretics is slight. If speed is really needed, resort must be made to intravenous use or to other

oral glycosides.

If digitoxin is the drug of choice, the best method of administration is by multiple dose, 0.6 mg. initially, and then 0.3 mg. every six hours until the desired effect is attained.

Digitoxin, when properly used, fulfills the criteria for a satisfactory preparation of digitalis. Apparently digitoxin offers no particular advantage over digitalis leaf for the usual treatment of a patient with congestive failure.

There is a possible real disadvantage to the use of digitoxin which I have on occasion noted, and have also found confirmed in the literature.⁶ Despite the stated cumulative action of digitoxin, it has been necessary to redigitalize some patients with congestive failure at intervals of 3-6 months, even though they have been on large, apparently adequate doses. Whether it is negligence on the part of the patient, drug fault, or progression of the cardiac condition I am not prepared to say definitely at this time, but simply advise that patients who are maintained on digitoxin be carefully observed.

Lanatoside C (Cedilanid)—Lanatoside C by mouth has the definite advantage of being rapidly eliminated, not poorly absorbed as is commonly supposed,⁷ therefore making it difficult to render a patient toxic. If a patient becomes toxic the duration of symptoms is short. It also acts faster than any preparation given by mouth.

However, lanatoside C has no advantage over digitalis leaf because its rapid elimination has the tremendous disadvantage of making it extremely difficult to maintain a proper therapeutic level of digitalization. Therefore when it is used the patient must be very carefully observed.

Digoxin—It is similar to lanatoside C in speed of action, being much more rapid than digitoxin. The rate of elimination is

between that of lanatoside C and that of digitoxin.⁸

The difficulty of maintaining full digitalization over the long periods necessary in chronic congestive heart failure is a serious disadvantage. However, digoxin deserves thoughtful consideration in the selection of a rapidly acting preparation for oral use.

Intravenous Preparations

The indiscriminate use of digitalis preparations intravenously must be discouraged.

The indications for intravenous use⁹ are: (1) acute failure of high degree, (2) inability to take medication by mouth, and (3) paroxysmal tachycardia with rapid onset of decompensation.

From the standpoint of toxicity, digitalis leaf has a definite advantage over the strophanthin group in having a wider margin between slight and marked toxic doses.

Digitoxin has the advantage of having the same dose for intravenous as for oral use. This is a questionable advantage, for digitalis leaf intravenously, as a rule, has a total dosage equal to $\frac{1}{3}$ of the calculated oral dose.

Lanatoside C has a wide margin of safety,¹⁰ apparently having the highest ratio of therapeutic to toxic dose of any of the glycosides. It is comparable to the strophanthin group for speed of action. The disadvantage of intravenous use is the necessity for frequent injection.

Digoxin is very similar to lanatoside C. However, it is relatively insoluble and of an irritating character, thereby making intravenous administration difficult.

Strophanthin group—This is the most rapidly acting group, inducing a decrease in ventricular rate and venous pressure 3-4 minutes after administration, with maximum effect in 30-120 minutes.

Ouabain is more uniform and stable than

strophanthin—K⁷.

Due to the short duration of action of ouabain, even when combined with digitalis leaf, the patient is often under or over-digitalized.

Summary and Conclusions

I have presented several digitalis preparations which are eligible for consideration for oral and/or intravenous usage, and have pointed out the advantages and disadvantages of each in the light of our present day knowledge.

My specific recommendations are:

1. For those of you who have had many, many years of experience with digitalis leaf I can see nothing in the present state of our knowledge to warrant change to a newer preparation.
2. For those of you who have the time and the facilities for careful observation of the patient, I recommend familiarization with one or two of the glycosides, and, further, that you become proficient in the use of the more rapidly acting preparations. Lack of rapidity of action is the chief deficiency in the use of digitalis leaf.

I feel that the glycosides represent a definite advance in cardiac therapy and should not be discarded because of an occasional mild reaction in patients or minor adverse reports in the literature.

It must be remembered that the most dangerous and toxic drug is worth more in the hands of the careful observer than the best drug used indiscriminately in the hands of others.

In closing, I wish to state that there is not now, nor will there likely be, one perfect drug preparation as long as heart disease varies in cause and degree from one individual to another.

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THE PETECHIOMETER: A SIMPLE METHOD FOR MEASURING CAPILLARY FRAGILITY

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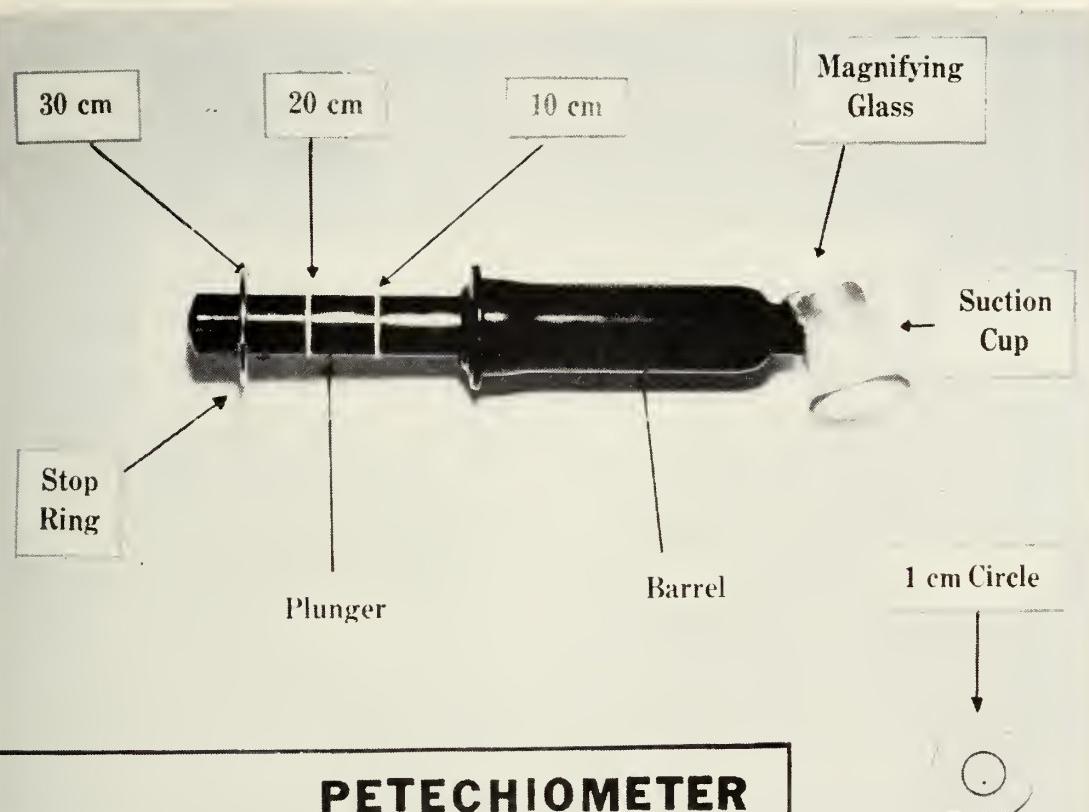
Since the advent of rutin,¹ hesperidine or one of the derivatives vitamin P and/or vitamin C² in the treatment of increased capillary fragility, the problem of a method of study which is simple as well as constant and comparative has become most important. The petechiometer should prove to be the answer.

Positive and negative pressure instruments have been in use for over fifty years. The former method employs venostasis, and the latter suction.

The tourniquet test, the Rumpel-Leede-Hess test³, and the Gothlin test⁴ are well known positive pressure or venostasis techniques.

The suction technic, which employs negative pressure, was first developed by Hecht⁵ in 1907, and later modified by Da Silva Mello,⁶ and by Borbely.⁷ The original suction techniques were cumbersome requiring at least two operators and considerable apparatus. In 1933 Dalldorf⁸ developed an apparatus with a manometer attached which was a simplified variation of the original instrument. However, it was still a cumbersome and fairly complicated device.

In 1947 the original handmade model was designed by the Rexall Drug Company and presented before the Society of Experi-



mental Biology and Medicine in Los Angeles. It was received with such enthusiasm that the present model, which is an improved instrument, was manufactured.⁹

The petechiometer (fig. 1) is a resistometer for the application of negative pressure to the hairless parts of the body for the clinical determination of increased capillary fragility.

The instrument consists of a clear plastic Bier bell suction cup 2 cm. in diameter with a magnifying glass incorporated in the upper surface to facilitate *in situ* counting of the petechiae developed. A black barrel is permanently attached to the suction cup and is closed at the outer end by a perforated screw type flange. Two springs and the plunger are in the barrel. The plunger is grooved at three points to accommodate a metal stop ring.¹⁰

Each of these three points yields a different suction. The lowermost groove equals

10 cm. of mercury; the middle setting 20 cm. of mercury, and the outermost slot 30 cm. of mercury setting.

Four hairless areas on each side of the body readily lend themselves to this technic, as follows:

1. Upper arm over biceps muscle.
2. Supra- and infraclavicular areas.
3. Inner aspect of the thigh.

The test is carried out in the following manner:

1. Set the stop ring in the lowermost (10 cm.) slot.
2. Expel the air by pressure on the plunger.
3. Place the bell lightly but firmly on the skin at one of the above areas. Release the plunger and apply the suction produced for exactly one minute.
4. If, after five minutes, not more than two petechiae are seen in the one centimeter central area of suction (which is delineated by a plastic 1 cm. circle supplied by the manufacturer) the test is repeated using the 20 cm. of mercury suction; then, if necessary, the 30 cm. of suction. The successive areas tested must be at least the width of the bell (2 cm.) apart.

The reading is determined as follows:

1. When the stop ring is in the innermost slot which produces the least, or 10 cm. of mercury, suction:
 - a. No petechiae means the capillary fragility is greater than 10 cm. of mercury suction.
 - b. One, but not more than, two, petechiae means the capillary fragility is exactly 10 cm. of mer-

- cury suction.
 c. More than two petechiae means the capillary fragility lies below 10 cm. of mercury.
 2. The same procedure is followed for reading at 20 cm. of mercury suction.

A normal of one and not more than two petechiae at 20 cm. of mercury suction is accepted. More than two petechiae at 20 cm. of mercury suction is indicative of increased capillary fragility. The 30 cm. slot is helpful in determining borderline cases and also to show improvement under treatment.

Certain precautions must be taken. Results on corresponding areas are compared. Experimental differences have been noted on non-corresponding areas of the same patient. Female subjects immediately prior to and during menstruation tend to show increased capillary fragility. Infections, even though they be slight, also tend to cause increased fragility.

Diem¹¹ reports forty or more clinical conditions as well as drug reactions in which increased capillary fragility is common.

The advantages of the petechiometer over the positive pressure methods are:

- a. Only a small hairless area is required.
- b. Multiple determinations can be made.
- c. Determinations can be repeated more frequently.
- d. Skin discoloration in increased capillary fragility is limited to an area centimeters in diameter rather than discoloration of the entire forearm.

e. The procedure is entirely without discomfort or pain to the subject.

Summary

A simple, convenient, comparative, non-time consuming, painless method for studying capillary fragility has been described.

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USE OF THE RICE DIET IN HYPERTENSION

Preliminary Report of Twenty-Five Patients

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and

JAMES W. CHAMBERS, M.D.

LaGrange

Patients with chronic progressive hypertension constitute a tremendous problem as the disease becomes severe. Conventional medical measures sooner or later become inadequate for the control of such symptoms as giddiness, "black-outs", headaches and attacks of hypertensive encephalopathy. Congestive heart failure is likely to develop; renal function usually diminishes; visual disturbances and even blindness may occur. The grave prognosis is made known, and the sick patient managed as well as possible until the problem is solved by apoplexy, death from intractable heart failure, or uremia. Not infrequently a cerebral vessel ruptures, causing paralysis or death, even when there has been little or no warning. For a group of such patients, for whom conventional medical measures had been unsatisfactory, the rice diet was prescribed. This diet represents one product of the tremendous amount of work which has been undertaken in the study of the problem of hypertension in the past few years.

This report concerns itself with the effect of this regimen on blood pressure and the degree of cooperation of our patients. The chemistry studies, effect on heart size, eye-grounds, renal function, etc., are not included because of the small number of patients.

From the Clark and Holder Clinic, LaGrange.

Read before the Medical Association of Georgia in annual session, Savannah, May 11, 1949.

Method

Typewritten instructions were furnished as to the diet, which was compiled as outlined by Kempner,¹ i.e., eight to ten ounces of any kind of rice (dry weight); all fruits except nuts, dates, avacados, and products to which substances other than sugar had been added during the processing and glucose and/or sucrose. The rice was boiled or steamed in water or fruit juice; and fluid intake was limited to one quart of fruit juice per day. Vitamins were added in the following daily amounts; A, 25,000 U.S.P. units; D, 1,000 U.S.P. units; thiamin HCl, 10 mg.; riboflavin, 5 mg.; nicotinamide, 150 mg.; ascorbic acid, 150 mg. (In some instances it may be necessary to administer riboflavin three times daily).

Several blood pressure measurements were made before the diet was begun. Although pressures were taken in various positions during the diagnostic study, all measurements recorded in this report were made in the *sitting position*. Except for a few of the earlier readings, the blood pressures given represent the average of at least three determinations.

No patient was put to bed. All patients except one were seen at least once a week for the first two months. After the initial laboratory studies, determinations of 24 hour urine chloride excretion were made routinely every two weeks, and other tests were repeated as necessary. Additions to the diet were individualized and determined by chemistry studies, blood pressure, weight of patient, etc.

Results

The 25 patients here reported (seven men and 18 women) have been followed for two to 11 months. Ages range from 32 to 73. They are divided into three groups according to the degree of cooperation, which is easy to determine. On the strict rice diet the daily output of Cl as NaCl is

0.2 Gm. or less, and if even a small amount of other food is taken this figure is exceeded.

Group 1—Patients who followed the prescribed diet 100 per cent: 12 patients. Of these the pressures of nine patients came to 148/90 or less within 60 to 90 days (Figs. 1-6). Eight of the nine had had moderately severe to severe essential hypertension for at least two years. The other (Mr. G. H. W.—Fig. 1) had chronic glomerulonephritis, and during the three years that he had been followed by us prior to his treatment with the rice diet his blood pressure had always been 180/110 or higher.

Of the other three, one (Mrs. C. L., Fig. 7) who had had a very severe essential hypertension for many years, has had a good response of the diastolic pressure, which has been normal at most readings since one month after beginning the rice diet; but the systolic, which was previously 250 mm. Hg has not dropped below 155. Another (Mrs. O. S. W.) has been on this diet for 70 days at the present writing, and is so far responding well. Her pressure has dropped from a fixed 205/125 to 147/99. The last patient in this group (Mrs. S. E., Fig. 8) showed very little response although she adhered strictly to the diet. We therefore discontinued the rice diet and prescribed a low sodium, low fat diet. The patient later died, probably of a myocardial infarction.

Of the 12 patients presented in Group 1, 11 responded excellently: eight had decreases in blood pressure to normal (140/90 or less) and three others to 148/90, 147/99 and 155/80 respectively. One did not respond well. At the present time, six of these are still on the diet (most having had additions of other food; their pressures remain normal or near normal). In two other instances the diet was discontinued by us and later reinstated. For three others the diet has been discontinued in favor of a

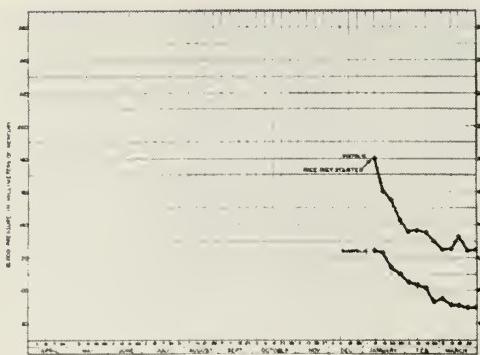


FIGURE NO. 81
MR. G. H. W.
MAY, 1948

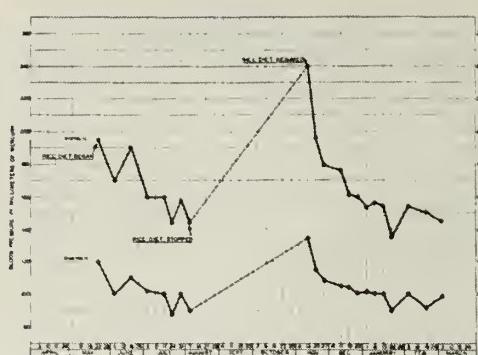


FIGURE NO. 84
MRS. A. J.
MAY, 1948

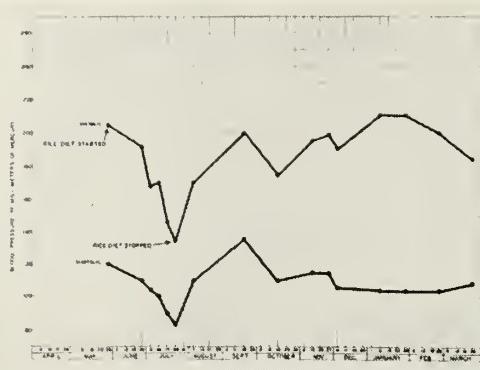


FIGURE NO. 82
MRS. C. M. S.
MAY, 1948

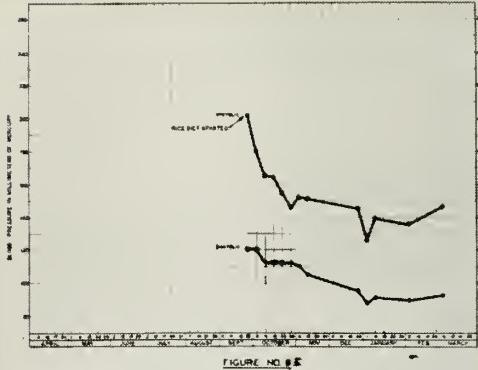


FIGURE NO. 85
MR. A. W.
MAY, 1948

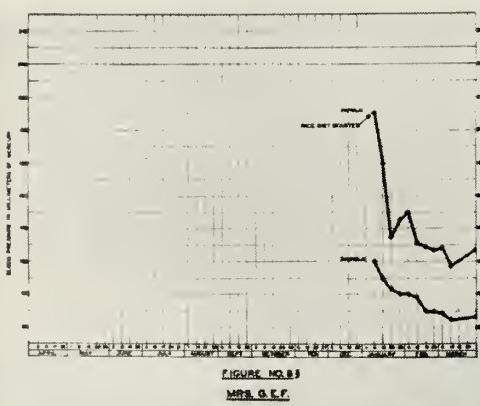


FIGURE NO. 83
MRS. G. E. F.
MAY, 1948

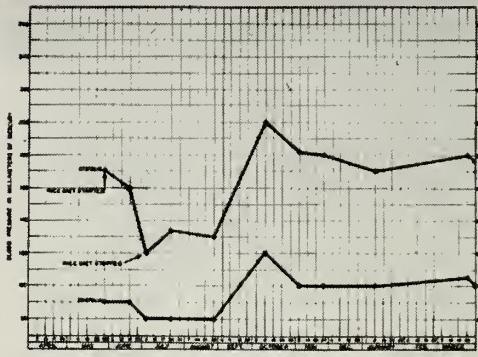


FIGURE NO. 86
MR. J. L.
MAY, 1948

low sodium, low fat regimen, and it has not been necessary to resume the rice diet.

Group 2—Patients who have followed the rice diet part of the time, but who occasionally or most of the time have been unable to resist eating other food: eight patients. All of these had moderately severe to severe essential hypertension.

Mrs. M. E. S. (Fig. 9), who had had

moderately severe essential hypertension for at least six years, responded well (her blood pressure fell to normal) and the diet was stopped. Her pressure rose to its previous level within three months, and the diet was resumed. The three elevations of pressure shown on the graph during November and December of 1948 represent the effect of tasting unauthorized food. The

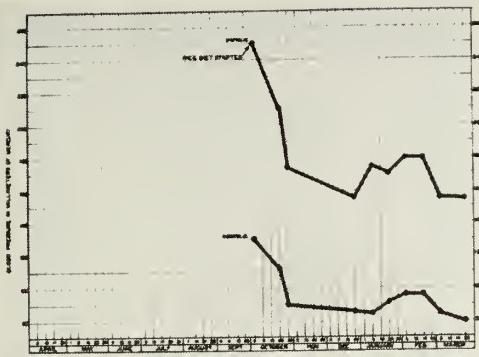


FIGURE NO. 7
MRS. C.L.
AGE: 31

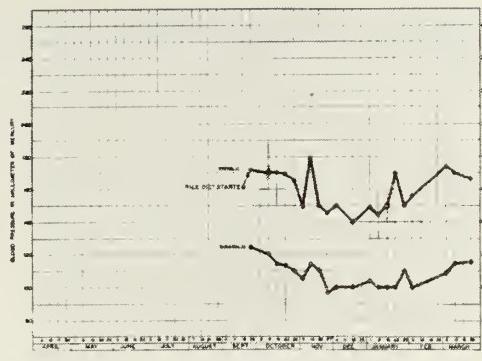


FIGURE NO. 10
MRS. E.A.
AGE: 31

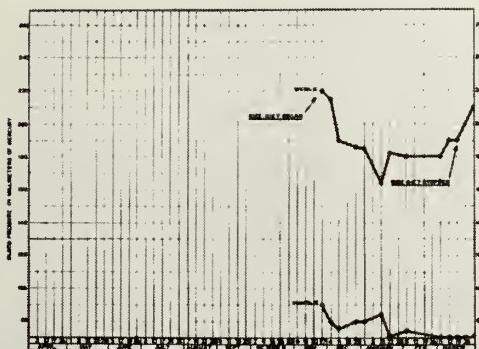


FIGURE NO. 8
MRS. S.C.
AGE: 31

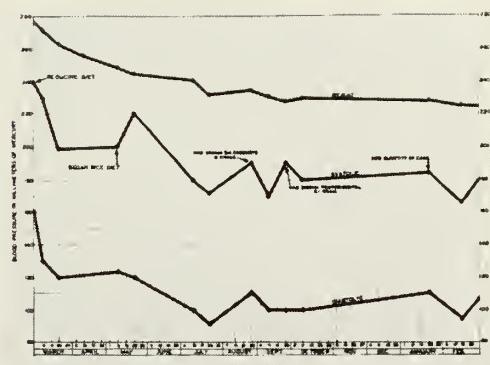


FIGURE NO. 11
MRS. J.F.E.
AGE: 31

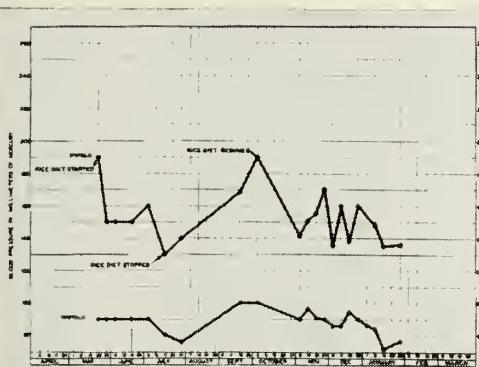


FIGURE NO. 9
MRS. M.E.S.
AGE: 31



FIGURE NO. 12
MRS. B.W.
AGE: 31

rice diet was again discontinued on February 1, 1949, blood pressure having dropped to normal, and the patient was hospitalized for cholecystectomy. Her postoperative record was uneventful, and the rice diet has not been resumed. However, by April 1, 1949 her pressure had again risen to 180/100.

Mrs. E. A. (Fig. 10) developed hyper-

tension at the age of 19. In 1946 when she was 31 years of age her pressure had reached 260/180 and she had had a cerebral hemorrhage. At that time a Smithwick operation was performed, and her pressure dropped to 140/100. From 1946 to 1948 her pressure gradually rose to 180/120, and she asked for the rice diet. Within 90 days her pressure had become 140-150/

100. At this point she began to eat extra food, and at the present time is following a diet which contains approximately 0.5 Gm. NaCl per day. At the last reading (April 9, 1949) her pressure was 190/100.

Mrs. J. F. E. (Fig. 11) was first seen in February, 1948, when she weighed 275 pounds and her blood pressure was 240/160. She was given a weight reduction diet, and during the next three months her weight decreased gradually to 245 pounds. Her blood pressure decreased somewhat, but the diastolic did not drop lower than 120, where it had remained from March through May, when the rice diet was prescribed. Within 60 days thereafter, although her weight had decreased only 13 more pounds, her blood pressure had dropped to 172/92. Since that time, she has followed the rice diet more or less carefully, and her blood pressure rises when she eats extra food. By April 14, 1949 her weight was 221 pounds and her blood pressure 168/94. There has been an immense improvement in her symptoms.

Mrs. B. W. (Fig. 12) was first seen in October, 1948 when her blood pressure was 240/114, her weight 169 pounds, and her height 61½ inches. She was given a diet for weight reduction, and by the middle of January, 1949, her weight was 153 pounds and her blood pressure was 228/105. At that time she was started on the rice diet, and within 35 days her pressure had dropped to 132/80. During this period she had lost eight more pounds. A small addition of food was then prescribed (one ounce of lean beef twice weekly), but the patient was no longer able to restrict herself to her dietary limitations, and the result is clearly shown in Figure 12.

Of the other four patients in Group 2, three were similar to those described above. The fourth (Mrs. R. G.) adhered strictly to the diet for 30 days, at the end of which time her blood pressure had not fallen sig-

nificantly (from 260/150 to 250/150). At the next visit the urine chloride determination indicated that she had had extra food.

Group 3—Patients who were unable to follow the rice diet: five patients. Of these, four patients followed the rice diet three to four weeks and discontinued it abruptly; all had begun to respond well. The fifth patient was in uremia from chronic glomerulonephritis when the diet was prescribed and was unable to retain any food and died in a few days.

Fifteen of the 25 patients are following the regimen at the present time, some as originally outlined, some of whom have been authorized many additions (such as non-leguminous vegetables, Irish potato, plain gelatin, lean beef and chicken in small amounts, salt-free bread, etc.). Those who are absolutely strict in their adherence to the dietary limitations (eight patients) have normal or near normal pressures. Of the other ten, two have died, four have been changed to other diets by us, and four have refused to follow the diet.

Discussion

It is apparent from this and other studies that the rice diet is extremely effective in reducing the blood pressure of hypertensive patients to normal or near normal in the majority of patients who will follow it assiduously. Concurrently as shown by Kempner,¹ there is a strong tendency to decrease in heart size, improvement in the electrocardiogram and in abnormal eyegrounds, and rapid loss of visible and invisible edema. Abnormally high blood levels of cholesterol decrease; the serum protein usually rises (probably due to the high coefficient of utilization of the particular proteins in the diet, plus the protein-sparing capacity of carbohydrates). The distressing symptoms of hypertensive patients disappear. Such results are not obtainable with any other form of medical management. Many of our patients had

previously failed to show any significant response to conventional measures.

The exact mechanism by which a diet of rice, fruit and sugar causes all the above results is not known. It is not a starvation regimen when all prescribed food is taken: the food intake is around 2,000 calories; enough calories may be given to cause a patient who is underweight to gain.

Since some patients with hypertensive vascular disease, particularly in the early stages, may show transient elevations of the blood pressure followed later by normal readings, it has been suggested that rice diet reports are simply representations of the "natural course of the disease". Such a stipulation is untenable because after the hypertensive disease becomes severe, remissions are very rare. Many of our patients had maintained consistently high pressures for years; and the law of mathematical probability obviously refutes the possibility that all these patients were suddenly about to manifest a spontaneous remission precisely coincidental with the application of the rice diet.

Critics of the rice regimen have attributed its success to "psychotherapy". Such is not the case because (1) no psychotherapy is given; (2) no psychotherapist has ever produced such results; (3) if nothing were altered but the foods themselves, and these were changed to equally limited and equally unpalatable foods (for example, nothing but oatmeal and green beans) the regimen would not be successful: the results desired do not obtain until the total 24 hour urinary excretion of Cl (as NaCl) falls to 0.2 Gm. or less (normal 6-10 Gm.). (However, after the blood pressure becomes normal and additions are made to the diet, the total 24 hour chloride excretion rises to 1 or 2 Gm., sometimes to 4 Gm., while the blood pressure remains normal or near normal).

Thus the extreme salt restriction prob-

ably plays a major role. Restriction of fat may also be significant; and the same possibly applies to protein. Furthermore, the sulfate, phosphate and other ions are altered.

Unfortunately, the rice diet is a dangerous regimen unless the patient is followed closely, particularly during the first two or three months. If facilities are not available for accurate chemical tests of blood and urine, including sodium, potassium and chloride determinations, CO₂ combining power of plasma, etc., it is much more dangerous to use the rice diet than to treat the hypertension with placebos. For example, three of our patients were so-called "salt-leakers" and might have died had not the nature of the imbalance been detected and treated. Hyperpotassemia, which may be rather rapidly fatal, has resulted from the rice diet. Acidosis may also occur.² The other disadvantage of the rice diet is that it removes most of the pleasure of eating. More than 50 per cent of our patients were unable to follow the regimen strictly.

Summary and Conclusions

Twenty-five patients have been studied for whom the rice diet of Kempner was prescribed, 23 of whom had moderately severe to very severe essential hypertension, and two of whom had chronic glomerulonephritis. One of the latter was uremic. Twelve patients followed the regimen strictly, and of these, 11 responded excellently, their blood pressures falling to normal or near normal. The twelfth did not respond; the diet was discontinued and the patient later died of a myocardial infarction. Eight patients tried to follow the diet but sometimes were unable to resist eating extra food, which caused increases in blood pressure. Five patients were unable to follow the diet, four of whom discontinued it themselves, and the fifth, who was unable to

retain food because of uremia, died shortly.

Although the excellent results from this diet manifested by those patients who follow it are not obtainable by any other medical regimen, many patients are not willing to follow it strictly, and only a slight addition of unauthorized food may prevent the desired result. Further, it is dangerous to prescribe the rice diet unless facilities are at hand for thorough laboratory control.

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DISCUSSION OF PAPERS BY DR. C. PURCELL ROBERTS, BY DR. LOUIS K. LEVY, BY DR. JAMES I. WEINBERG AND BY DR. R. E. FELDER

DR. HARRY T. HARPER, JR. (Augusta): I thoroughly agree with Dr. Roberts' conclusions and the bulk of his statements, with the exception that I would be just a little loath to attach too much importance to some of the rather minimal changes in the cardiograms shown on some of the patients.

It is rather important, I think, to emphasize, in discussing a cardiogram in the anginal syndrome, the importance of as thorough a cardiographic study as possible. Twenty-five per cent of the cardiograms will be normal in patients with angina pectoris if only three conventional leads and a single precordial lead are obtained; but in addition to this, with the unipolar limb leads, and the use of six (and in some cases more) multiple precordial leads, this percentage can be cut down to less than 5 per cent, a very significant difference.

Exercise tolerance tests are used in some sections and not in others. We think they are decidedly helpful in cases where an equivocal history, compensation cases, disposition board cases, and the like, are observed. The recent criteria listed by Katz in the Annals of Internal Medicine should probably be followed. Occasionally we use the anoxemia test of Levy. Again, do this only in the hospital, and with very much care indeed. We think it is definitely helpful.

If in doubt, as Dr. Roberts emphasizes, serial tracings may well give an answer. Certainly if myocardial infarction is suspected, if the first tracing is normal, the patient should be treated as if he has had a coronary occlusion, and a subsequent tracing should be made in forty-eight hours.

Concerning Dr. Levy's paper on the selection of a digitalizing drug, we should like to emphasize the fact that digitalis is certainly the most misused of all of our drugs. The indication for its administration are thoroughly misunderstood. Oftentimes it is administered in types of heart failure in which it is not indicated.

Digitalis should be administered only in heart failure which is due to a primary weakness of the heart muscle or myocardial insufficiency. It should not be given usually, to heart failure which is due to improper filling of the heart or to cases of heart failure in which the cardiac output is sharply increased, or cases of peripheral circulatory failure.

The physician should certainly become expert with one type of digitalis, and preferably stick to this brand and this type. The glycosides are perhaps better used because they are largely 100 per cent absorbed from the gastro-intestinal tract. You can be reasonably sure that any nausea following the administration of the glycosides is due to toxic effect of the glycosides, not

to local irritant effect on the gastric or gastro-intestinal mucosa.

The need for bioassay, cat units, U.S.P. units, human assay, and the like, a confusion which has resulted from the various strengths of the U.S.P. units, is eliminated when the purified glycosides are used. Digitoxin is slowly eliminated on the same order as the powdered leaves of digitalis, whereas digitoxin and cedilanid are rapidly eliminated. This may or may not be an advantage.

There is a wider margin of safety with the more rapidly eliminated agents if toxicity does develop. It is worth while to mention the newest agent which has been tried experimentally, acetyl strophanthidin, with which an individual can be completely digitalized in five minutes with one milligram intravenously. This agent is completely eliminated in the majority of cases within two hours. Thus this agent perhaps presents the widest margin of safety of all, due to its very rapid elimination and probably will become the agent of choice in supraventricular tachycardia, and such as failure occurring on the operating table, postoperative, postpartum, and so on.

The petechiometer, as discussed by Dr. Weinberg, is certainly a worthwhile addition to our armamentarium for studying vascular disease. Until this instrument was developed we had no well standardized method. Other methods have not been well standardized.

Concerning the rice diet, it is interesting that only 12 out of the 25 patients followed the diet 100 per cent. The main criticism seems to be that no one who is free, white and over 21 will remain on this diet for longer than three weeks of his own volition. This is the major objection to the diet. The 88 per cent good response compares favorably with Kempner's response of 62 per cent. The difference in the total number of patients may account for the difference.

The question of psychotherapy always comes up. It may or may not have something to do with the results. No psychiatrist has been able to present a series of patients with hypertension in whom Grade 4 eye ground changes, Grade 4 heart and retinal involvement, and the like, have been reverted to Grade 1 or 2 with pure psychotherapy. Certainly mass hysteria and the amount of psychology which prevails in being able to walk down to the corner and see a dozen individuals in a rice kitchen, eating rice, are helpful in getting patients to stick to the rice diet. It is different from a patient trying to choke down a bowl full of rice at home.

DR. ERNEST F. WAHL (Thomasville): The title of Dr. Roberts' paper is in itself fascinating—"The Normal Electrocardiogram and Anginal Syndrome." There are cases of angina almost invariably that present normal electrocardiograms.

In doing a great many electrocardiograms on people who simply present themselves for a diagnostic study, we commonly find what is classified as minor abnormalities, to which we can attach no significance. In most instances we never can attach significance to those minor abnormalities; but, as Dr. Roberts showed, occasionally in serial tracings they progress to a point where they do have significance.

I personally feel that the various so-called exercise tests have practically no place in the practice of medicine unless in those cases where compensation or malingering is involved.

When we are dealing with a very nervous patient, who might also have heart disease, we certainly have a difficult problem, and one in which it is sometimes almost impossible to evaluate the situation. Unfortunately, that type of person can also have heart disease. In that class of individuals I feel that we as physicians are doing much less harm if we withhold the diagnosis of heart disease until we are absolutely certain of it, rather than to try to "protect our necks", so to speak,

by telling them they might have a "little" heart disease.

Dr. Levy made a statement that there was very little occasion for the intravenous use of digitalis, to which I agree, and I would like to add that there isn't any use for the drug given subcutaneously. It has been stated for at least twenty years that it is more or less inert subcutaneously, but it is still given that way quite often.

Until the last few years we could usually tell, from the history of the patient, if he was getting digitalis; they were taking so many drops a day, or a little green tablet, or a little capsule with a band around it. Now we don't know what they are getting. We are seeing patients who are sure they have had no digitalis, yet the changes in the electrocardiogram are extremely suggestive of it, and sometimes when we get the prescriptions they have taken, we know that they have had digitalis.

It is difficult for me to discuss Dr. Felder's paper because I am not sure what I think of the rice diet. All of my patients lose weight on it, even thin people. It is very difficult to keep them on the diet. We know that there are some dramatic responses to the effects of this diet. We do not know what part of the diet produces the effects.

Recently a small series of cases has been reported from Barnes Hospital in St. Louis, where they tried to get some clue as to what part of that treatment program might be producing what results they get. They felt that maybe it was the low sodium element. The series of cases was too small to be conclusive.

Many people who leave Durham and go home are not going to follow the diet, regardless of what happens to them. I rather agree with Dr. Harper that the mass psychology used on them in Dr. Kempner's clinic produces a considerable amount of the benefits.

THE TIME FACTOR IN TESTING FOR VISUAL ACUITY FOLLOWING EYE INJURIES

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and

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While the test for visual acuity is only one of many procedures that must be performed when handling a case of eye injury, it nevertheless is probably the most important, for dependent on its value one determines whether or not the injured is compensated for any deficit revealed. Our duty to the patient is therefore two-fold: 1. To handle the individual case in such manner that the least amount of permanent disability results, and 2. While administering the best skill at our command, to detect malingering on the part of the patient in

order to obtain more compensation than the given injury warrants. These and the following considerations in this paper are chiefly applicable to industrial cases, but they are also to the same degree pertinent when applied to private patients.

One of the most exasperating factors in the treatment of these cases is a lack of knowledge of the pre-existing state of the visual acuity. When the patient has had a previous injury there is usually a record available from his doctor, but when he is new to the industrial field very often there is no record except the one made when we treat him. The obvious solution to this problem is to require pre-employment examinations. Happily, more and more companies are doing this, and in addition are job-rating each employee for the type of work to which his eyes are best suited. With the current re-opening of many war plants and a fresh reservoir of employees these considerations take on timely significance for both employer and physician.

From the medicolegal standpoint we must be governed in the treatment of our patients by procedures that are generally approved by the medical profession. With respect to visual acuity we should decide whether or not such a test on the patient's first visit is a useful, feasible, standard or generally approved procedure.¹ This problem is one which we consider to be dependent on the facts concerning the individual case and should not be determined by the unthinking application of a formula for which there is no logical basis.

In two recent and otherwise excellent publications we see a tendency to follow this latter principle. Selinger² says: "Whenever possible, visual acuity should be determined before treatment is started. This may safeguard the oculist against a malpractice suit, since some patients may blame the treatment for a subsequent loss of sight." Campbell³ says: "When the patient is first

seen a thorough and complete history is taken. Two drops of $\frac{1}{2}$ per cent pontocaine is instilled in the eye. The visual acuity is then carefully checked."

When at first examination it is determined that the injury is minor and that the patient will not need to be seen more than once, the visual acuity is recorded. We always record it when ready to dismiss the patient, and if there is any deficit we proceed to find out what is the cause: if it be a refractive error, blurring from a corneal opacity in the line of vision, intra-ocular disease or just plain malingering. In the 1500 odd cases of eye injury we treated in the past 12 months, when the patient's vision was not 20/20 or better, we were able to satisfy our own minds at least that one or more of the above four factors was at work.

In those instances where we are required to make a record of visual acuity on the first visit we have two alternatives:⁴

1. Record it and indicate that we do not consider this record feasible or helpful at the time.
2. Record it and indicate that we do not consider the results to represent a reliable appraisal of the patient's past or future vision.

Very often, within weeks or months, the visual acuity if deficient will improve considerably.

Snell⁵ in his book on *Medicolegal Ophthalmology* discusses and lists the various procedures to follow when handling an eye injury with medicolegal aspects. We find that the determination of visual acuity appears far down on the list, even farther than the admonition to instill a local anesthetic to allay pain. However, we find no indication in this discussion just when visual acuity should be taken. While discussing this problem with an adjustor of claims he informed us that he was interested only in the final and ultimate vision—not in any acuity record we might determine during the course of treatment. For our own use we often keep such a record to correlate with the clearing of a corneal opacity or

resolution of vitreous floaters in a case of intra-ocular foreign body.⁶ As an interesting scientific exercise one could record vision to compare "before" and "after" treatment pictures of the visual acuity, but for legal significance the "before" aspect, in our opinion, has no value.

Facility in treating eye injuries requires that we keep in mind a basic working formula which prevents us from overlooking important details in therapeutics and yet at the same time is one which is flexible and adaptable to the individual case at hand. We believe that in view of the foregoing and our discussion below, the recording of visual acuity at any time before the conclusion of treatment for eye injury is a useless, deceiving and in general a procedure that is not feasible, therefore it should be abandoned without regret.

Though this discussion deals with injuries directly to the eye, it might not be amiss to mention that certain systemic disorders, among them syphilis, have a bearing secondarily on this question. For example we cite the following case:

Mr. E. C. H. reported that he was electric welding about a week before we saw him and at the time received actinic burns to both eyes. He stated that since then he has had poor vision in the right eye. Vision right was 20/50 minus, left was 20/15 minus. Externals, cornea, and media were negative. Fundus examination revealed in the right eye a nerve head that was pinker than normal and a macular choroiditis. Upon questioning he revealed acquiring lues overseas and undergoing the "quick" penicillin treatment. A Kahn test was reported as negative. He was advised to report to the local veterans hospital for further work-up and treatment.

Violent head injuries causing hemorrhages or contusions in the visual pathways or cortex are another source of visual loss. The patient is frequently unconscious for long periods of time and until consciousness is regained the checking of visual acuity is obviously impossible.

The phrase "traumatic iritis" appears frequently in what follows so we deem it advisable to state our conception of this entity. It is a generalized vasodilatation of iris, ciliary body and frequently the choroid

with all the clinical signs and symptoms of iritis due to infection: caused essentially by external factors such as contusion, presence of foreign body (rust scale) or other injury such as excess traumatization of the cornea in attempted removal of "stain". When a mydriatic is instilled after curettage we have seen the iris area subjacent to the corneal area worked upon dilate *much slower* than the other portions. As a result of this observation, when at our examination we see that the foreign body might require a lot of curettage to remove it, we first dilate the pupil with homatropine and then proceed.

Duke-Elder⁷ explains the process: the external force that causes this vasodilatation is mediated by the sensory nerves, in this case the ophthalmic division of the fifth cranial. It produces its effect by antidromic activity of the sensory nerve, a typical axon reflex. He mentions that the reflex spread to the other eye can be prevented by a retrobulbar injection of novocaine. Since many patients complain that the "good" eye is affected by the injured one it might be argued that such recourse be resorted to in all severely injured eyes. The previously mentioned vasodilatation is caused by the liberation of histamine or a "histamine-like" substance and is similar to the "triple-response" seen in the skin. In a recent article⁸ Duke-Elder says that this is limited to the skin, conjunctiva and the inner eye and so far the eye has been found to be the only "internal organ in which this response has been found—as might be conjectured from the almost entire origin of the eye from the embryonic ectoderm and neural ectoderm."

After this "triple response" has once occurred Duke-Elder says that vasoconstriction is not possible: there is a state of refractoriness of the uvea. In fact when after a state of prolonged irritation atropine will

not dilate the pupil we have had to resort to the use of the 10 per cent emulsion of neosynephrine hydrochloride.

The following then are our reasons for *not* checking the visual acuity immediately following eye injuries:

1. The patient is in pain due to the injury, foreign body, transient glaucoma or a traumatic iritis, and the resulting lacrimation is bound to interfere with accurate visual recording.
2. Because of the pain and blepharospasm even to attempt to record vision without a local anesthetic² is useless. A very small percentage of patients is sensitive to the anesthetic which results in corneal edema⁹ which interferes with vision.
3. There is very often a foreign body, corneal abrasion or denudation by action of acid or alkali that obviously interferes with vision, particularly when it is directly in the line of vision.
4. When the foreign body does not interfere with the vision the process of recording often uncovers a pre-existing deficit in the visual acuity of which the patient is unaware until we take his vision immediately after the accident, which deficit the patient will try, often vigorously, to relate to said accident.
5. In the occasional eye we find an individual idiosyncrasy in that the pupil will dilate after the use of only a drop or two of local anesthetic, such as pontocaine. We must not forget that cocaine itself is a mydriatic.
6. To prolong the action of the local anesthetic a 1:2000 solution of adrenalin is often used and recommended. Some patients, particularly those whose epithelium has been abraded, burned, etc., react to this in a very few minutes with mydriasis, thus negating visual recording.
7. Many persons are seen in our office who have a traumatic iritis. This spasm in the ciliary muscle is very painful and results in a change from the pre-existing refraction: causing an *artificial myopia* and *macropsia*¹⁰. With the spasm there is little effort to see close objects, therefore they are judged to be farther off—hence larger.
8. There is the occasional patient who has been treated either in a local hospital or seen by another physician and who already has the pupil dilated—checking vision in this instance has no diagnostic or prognostic value.
9. After contusions to the globe there is frequently a transient glaucoma varying from a few minutes to half a day or longer during which time the patient very definitely cannot see at all or very poorly. This soon passes off when the intra-ocular pressure readjusts itself; and after we see the patient he often does not return even at our request. If vision were recorded during the time of increased pressure and if he did not return as requested, our report would indicate that he deserved either total or partial disability.
10. Even though the vision is recorded before the patient leaves the office, it is frequently necessary to first dilate the pupil, either because of the iritis or as a prophylactic measure when a lot of work has to be done in the removal of corneal stain.
11. When we record vision first a lot of patients get the idea that we think something is really wrong with their eyes, otherwise we would not be checking vision, and they will make the most of any deficit revealed. Their main desire in coming to us with an eye injury is relief from pain, often exquisite; only after this relief do they express concern over their vision possibly being affected.¹¹ Many times we have

seen a patient, often several hours after an accident, who came in only because the eye "hurt" and with very minor complaints that the eye felt as if it still had something in it. He wanted relief from pain and only on examination did we find, and he became aware of the fact, that he had loss of contents or traumatic cataract. Many who do have a decrease in acuity are subsequently brought up to 20/20 or better with proper glasses, evidence of a pre-existing condition and unrelated to the accident.

12. Many patients we see are over 40 and have never had a complete eye examination. They attribute dimness of vision to the accident, whereas examination is entirely negative but for presbyopia. A good phrase to remember is that "eye injury makes for eye consciousness".

Summary

Two recent articles have been mentioned which stress recording visual acuity at the first examination for eye injury, one even before treatment is started. The medico-legal aspects of this phase in the treatment of ocular injury have been discussed and twelve reasons why we do not think it should be done have been explained. Probably the most important one is number four: recording acuity first often uncovers a pre-existing deficit of which the patient is unaware until we perform the test. The average individual seen in the office will more often than not attempt to relate this deficit to the injury, resulting in needless and time-consuming effort to substantiate our finding.

The discussion in this paper is applicable equally to industrial as well as private patients.

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We wish to extend to Dr. Alan R. Moritz of the Department of Legal Medicine, Harvard Medical School, our grateful appreciation for his helpful suggestions.

WHY I AM GLAD I AFFILIATED IN PUBLIC HEALTH NURSING

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Athens

Eight weeks of walking down back alleys and bathing indifferent patients who lived in dilapidated houses! That is what I was thinking as the bus drove into Columbus at the close of a very warm day this past June. During the trip I had been briefly reviewing the profitable affiliation I had just finished in a splendid general hospital set-up. I wondered how the eight weeks of public health nursing could ever compare with that recent experience.

Do not misunderstand me. It was not that I was not interested in public health nursing. I had even asked that this service be included in my basic nursing program. I was interested but, like many other student nurses, I did not know what public health really means. Do you remember the blind man of Bethsaida and his experience as it is recorded for us in the Book of Luke? The first time his eyes were touched with those Healing Hands, he saw. But he saw men as trees walking. The second touch really restored his sight, for then he "saw all men clearly." May I say that the integrated curriculum of a nursing school had opened my eyes to the significance of public health, but at the time of my going to Columbus I was still seeing it in gross disproportion.

Several factors served to clarify my vision. The first source of enlightenment came from the character of the work itself. You see, it was not all bathing indifferent patients or climbing up rickety stairs! However, if the patient needed a bath it was given, and the visit was still made even when the family lived in a shack hidden in tall weeds beside the railway track BUT! And this is to me a big *but* in the understanding of the work carried out in public health organization; that is, not all that this phase of nursing involves. Day by day during those fascinating eight weeks I saw what is meant by the preventive aspect of medicine and what is meant by the health education of the public demonstrated before me in such fashion that I began to appreciate as never before their true place in nursing in America in 1948. We had been instructed in those two aspects of health all through our student nursing period and in a measure had applied the principles to hospital situations. It was in the public health nursing situation outside of the hospital that I learned of their fullest application. At the Court House each week in a class for pregnant (and by no means indigent) mothers, in an industrial plant where patients brought their worries as well as their physical injuries to the nurse, in the well-baby clinics

where mothers were counseled in child care, and in neighborhood searches for contacts of tuberculous and venereal disease patients—everywhere there was a demonstration of the meaning and value of public health nursing.

A particular satisfaction was gained from the utilization of knowledge and skills learned in a hospital situation but now applied to home environments where facilities were limited and ingenuity was as important as scientific information. Those days when imagination, nursing skill, and psychology had to be knitted together in order to meet the need of a family or an individual stand out as unforgettable in my calendar of student nursing. The challenge was a personal one.

The other telling instrument of giving me 20/20 vision, as far as public health is concerned, was the personnel in the health department. Interdependence, coordination, common interest, cooperation, all these aptly describe the adequately trained and intelligently enthusiastic group of workers that constituted the staff. Nurses, doctors, sanitarians, laboratory technicians, secretaries, research workers, social service employees, all concentrating their *united* energies for the health of the community. Sounds rather idealistic, doesn't it? But I saw it in practice. I should like to take seeds of that fine organization and sow them all over America. Now that my eyes were opened, what did I see?

1. The close relationship between the patient in the hospital and the family at home. The man in the T.B. isolation unit is the father of a large family whose economic security is threatened with the main source being incapacitated. The maternity case that seems to baffle the doctors because of no reasonable cause of complications could be explained when one finds the family left without adequate care for the children at home while the mother is in the hospital. The child that came into the pediatric ward at almost regular intervals with one illness after the other can be understood in the light of his home conditions. After having visited those homes I saw that.

2. The nurse's position in the community. I saw that. Because I had learned a little about this great problem of health my knowledge made me a debtor, not only to the ill patient in the hospital, but to the community as a whole. I know that the cry of need came from every member of our society. There are many nurses in America. I began to wonder how we were meeting this need.

3. The interdependence of hospital personnel, public health organizations, and all social agencies in the community. In one morning, as an example, I as a public health nurse had to telephone the local hospital for doctor's orders, appeal to the Salvation Army for food and clothing for the same situation, and notify the sanitary department of unhealthful living conditions threatening the health of the neighborhood. With-

out each one of these organizations that family could not have been adequately cared for.

4. This led to my final conviction—that, after all, there is no wall of separation dividing the hospital staff nurse from the district nurse, of the private duty nurse from the industrial nurse, etc. I saw that those distinctions were a mere figment of my imagination, built up partly through prejudice, and mostly through ignorance. The truly qualified and the well-adjusted nurse of today is a public health nurse, no matter what her actual position may be. Because of this I am glad to have had an affiliation in public health nursing.

SYNTHETIC DRUG RELIEVES ASTHMA

Aludrine, a synthetic drug modified from adrenalin, generally affords quick and pleasant relief for asthma sufferers, according to two doctors from the Johns Hopkins University School of Medicine and the Protein Clinic, Johns Hopkins Hospital, Baltimore.

Writing in the February 12 issue of *The Journal of the American Medical Association*, Leslie N. Gay, M.D., and James W. Long, M.D., say that inhalation of a mist of aludrine relieves patients with asthma of all degrees of severity. No undesirable reactions to proper dosage of aludrine mist occurred in 48 asthma patients treated by the doctors.

"Aludrine solution was administered by hand atomizers," they report. "Patients were instructed to take five inhalations at the onset of wheezing and to repeat this again in five minutes if necessary and if no untoward symptoms appeared. Each patient was able to determine for himself the best number of inhalations and courses to use in his individual case."

"Every patient experiencing mild asthma reported immediate and complete relief after one course of three to six inhalations. Sixteen of 19 patients experiencing asthma of moderate severity obtained moderate to marked relief with two to three courses of four to six inhalations each. The remaining patients of the 19 obtained mild relief."

"Sixteen of 21 patients experiencing frequently recurrent paroxysms of severe asthma obtained moderate to marked relief employing one to three courses of six to eight inhalations each. Most of these cases of severe asthma were those requiring treatment in the emergency room of the outpatient department because of their failure to respond to the usual procedures and medications used at home."

"Response was quick in every case, beginning in two to three minutes and reaching its maximum in about five minutes. Only two patients with severe asthma failed to obtain some benefit from inhaled aludrine mist."

"The benefit in the extreme cases lasted only about 15 minutes, at which time another series of inhalations had to be given. Patients with mild asthma reported relief ranging from two to 12 hours."

"Fifteen patients were selected to compare the effects of aludrine and adrenalin administered by inhalation and to state their preference. Aludrine was preferred by 12 patients."

Five patients who no longer responded to adrenalin during asthmatic attacks responded promptly to the first course of aludrine mist.

Have you paid your 1949 dues? What do you get for them? Well, sit down and do a little thinking. If you got sued, what would happen? And wouldn't you and your wife be unhappy to be on the outside?

ESTROANDROGENS IN THE TREATMENT OF MAMMARY CANCER

In 1939, Ulrich and Loeser advocated using androgens in the treatment of mammary cancer. Since their report, other investigators, including Farrow, Fels, Adair, Roger, Davison and Letton, Haddow, Ellis, Nathinson, and Herman, have added contributions to the subject. In *The Journal of the American Medical Association* for August 13, 1949, Adair and his associates presented their recent studies on the problem, and their report appears to be of such importance it warrants abstract from some parts of the article.

First, we must call attention to the fact that there is little evidence whatever at hand, so far, that would allow us to say that the estroandrogens will cure mammary cancer, or to hope for much in that direction. The main effect is one almost entirely palliative; but the exhaustive investigations by Drs. Adair, Farrow and Urban may widen the scope and usefulness of this form of therapy. No one can so far anticipate what factors may come to light in further experimentation. In the report referred to, 105 patients were treated: 70 received androgens and 35 were treated with estrogens. Ages ranged from 20 to 70 years. All had advanced mammary cancer. Most of them had metastases to bone and to soft tissues, one or both. Seventy-two women had radical mastectomies.

Testosterone propionate, 100 mg. intramuscularly, was given three times weekly to 70 patients who had metastatic involvement of bone or soft tissue, or both. Nineteen per cent of 48 patients with skeletal lesions and 15 per cent of 54 patients with extraskeletal metastases showed objective improvement. The dosage received at time benefit occurred ranged from 500 to 3,000 mg. The improvement continued from two to eleven months; half of those treated for four months or longer. The patients were also symptomatically improved. The most impressive result was the *relief of pain*.

Diethylstilbestrol, ethinyl estradiol and estrone sulfate were administered to 35 patients. Improvement resulted in 23 per cent of the patients with extraskeletal metastases, but no good result otherwise was noted in those with osseous lesions. Improvement was notable after about 630 mg. had been administered. They were benefited for a period of two to seventeen months. *Pain was significantly relieved* in 11 out of 18 patients. Of the patients treated, 55 had died at time of the report. Apparently the cancer in all patients continued progressively in spite of symptomatic relief. There was no evidence that metastases were prevented or delayed. Many who were unable to work prior to treatment were enabled to return to their former activities, or to become gainfully employed.

As to the side effect of the androgens and estrogens, most of the patients gained in weight. In some, edema of the extremities occurred.

Others developed deep voices, increased libido, hirsutism and acne. Some suffered nausea and vomiting, and a few began to bleed vaginally. There appeared little change from normal regarding calcium, phosphatase, etc., except in those patients with bony metastases in whom an early rise was noted in alkaline phosphatase; and calcium reduction in those patients receiving testosterone. These substances were little affected with estradiol. Estrogen accelerated the malignant growth in one patient, aged 49 years.

One very remarkable result was concerned with the effect on hemoglobin; and of 15 patients under treatment for a period of seven months, the hemoglobin increased from 12.6 to 15.9 Gm.

To summarize the report, it confirms the opinion that testosterone and diethylstilbestrol are valuable adjunctive treatments in mammary cancer of the incurable groups. The substances certainly lessen *pain*. They are not, however, without side effects, some of which appear to be very disagreeable, but under the conditions at hand appear to be of little importance. The authors have also found that these substances have something to do with certain phases of metabolism in relationship to phosphatase, phosphorus and calcium. The interesting observation of the increase in hemoglobin might well turn out to be one of the most important contributions of all. Furthermore, it could well be that experimental research in this type of therapy might further unfold the key to the genesis of malignancy. We should again and again insist that, at this time, there is no evidence that the chemicals are cancer *curative*. It is very easy for the laity to get that impression, and when they find out to the contrary it is very disappointing to them. Neither is such treatment expected to replace irradiation. Perhaps there will come increasing evidence that both can be used with great advantage when combined. The report by Adair, Farrow and Urban would certainly have been of added interest had they made reference to the problem of pain relative to the use of morphine and other such remedies during the treatments. Was morphine continued, decreased, or could it be withheld entirely from the patient? If so, then that would be another contribution of paramount importance. On the other hand, if the patient continued to have morphine concurrently with the hormones, how does one clarify the matter of pain in degree or intensity? Davison and Letton, who have written on testosterone therapy in treating cancer (Southern Surgeon, March, 1948, volume XIV) have informed me that they had patients with skeletal metastases from whom morphine was completely withdrawn as improvement occurred. All in all, hormonal therapy has opened a great field in treating cancer. To date their use appears to be limited; but any substance, other than morphine, which will control *cancer pain* is a gift of the Gods which is not to be minimized.

JACK C. NORRIS, M. D.

PRESIDENT'S PAGE

A.M.A. ASSESSMENT

Are the members of the Medical Association of Georgia unable or unwilling to do their share in the fight to prevent the socialization of medical practice? Do we feel that most of the burden should fall on other State Associations while we receive our share of the benefits? Are there any of us who feel that we are so "bad-off" financially that we cannot afford a few extra dollars as insurance that our system of medical practice shall not be destroyed? I personally do not believe that this is true. I know that we are both willing and able to do our share and meet our responsibilities.

In the latest report from A.M.A. headquarters only 55 per cent of our members had paid their \$25 assessment. This places

us far down on the list of State Associations. I feel sure that you all know the importance of this assessment in carrying on our program. The A.M.A. has already accomplished much good by their public relations program, but the fight is not won and much more needs to be done. Their ability to do this depends on our supplying the necessary funds to continue the present program.

Now, I know that many of us have failed to send our checks in due to carelessness or procrastination. If you have not mailed your check, sit down now and make a check payable to the A.M.A. and mail it to your county secretary or to the secretary of the Medical Association of Georgia. Let us put Georgia up in front where it belongs.

ENOCH CALLAWAY, M.D.

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**INDUSTRIAL POLLUTION CAUSES
IMPORTANT HEALTH PROBLEMS**

"Mankind has entered a new world of environmental conditions giving rise to serious health problems," points out an editorial in the August 27 *Journal of the American Medical Association*.

The editorial follows in part:

"About one hundred years have passed since modern man first experimented in modifying his natural environment by the addition of numerous new and often artificial products created by modern industry. Occupational diseases furnish a vivid example of the many and frequently serious new health hazards to which the industrially employed part of mankind has become exposed.

"The inclusion of some of these agents in consumer goods, such as foodstuffs, cosmetics, medicines, household goods and clothing, and their sometimes indiscriminate use have brought the general population into close contact with the injurious factors in the modern industrial environment.

"Perhaps the most important and alarming aspect of the recent change in human environment is the increasing and often severe pollution of the air, soil, and water with both industrial wastes and regular products of industrial manufacture, such as pesticides and coal and petroleum road tars and asphalts, injurious to human health.

"Fumes and gases from petroleum refineries are obnoxious to the people living in their environs; their odors are offensive and even nauseating. Such fumes contribute to the formation of the 'smog' encountered in the Los Angeles area and give rise to irritation of the eyes and the respiratory tract. Coke ovens and other industrial plants are a source of excessive production of soot and sulfur dioxide from the burning of coal. Considerable amounts of soot are released into the air during the production of carbon black from natural gas or mineral oil and during the burning of waste oil residues near oil refineries.

"The potential carcinogenic properties of soot are well established by numerous animal experiments and are supported by the occurrence of cancer of the skin in chimney sweeps. Apparently health hazards of various types exist for the population living in the immediate environment of other industrial establishments through air pollution with wastes.

"Prolonged sterilization of the soil has been produced by the deposition of arsenicals from

smelter fumes or as insecticides. In a few instances such soil pollution by arsenic-containing industrial wastes has resulted in the contamination of the drinking water supply with toxic amounts of arsenicals. The extensive pollution of rivers and lakes with industrial wastes and urban unprocessed sewage has converted many bodies of public water into unwholesome cesspools, dangerous to any form of life dependent on them as normal environment or for water supply.

"Although acute mass disasters from environmental pollution by industrial wastes are spectacular events because of the number of deaths and diseased persons encountered, such catastrophes occur rather infrequently as the result of unusually massive exposures and are therefore of lesser importance than more widespread and less obvious injuries to health occasioned by the prolonged action of smaller concentrations of the environmental injurious agents on larger population groups. The type and degree of health hazards produced by such exposures is not readily ascertained.

"Often the symptoms produced are noncharacteristic and may be easily confused with those seen with bacterial infections, nonindustrial allergies, or constitutional anomalies."

**SYNTHETIC DRUG AIDS
SHAKING PALSY VICTIMS**

Successful use of an almost entirely nontoxic drug to alleviate tremor and other symptoms of shaking palsy is reported in the August 27 *Journal of the American Medical Association*.

The synthetic compound, called Artane, counteracts constriction of muscles and other effects produced by certain nerves. Artane affords as much relief to patients with the disease as does any other available drug, according to Drs. Lewis J. Doshay and Kate Constable, of Columbia University and Neurological Institute, New York.

Artane is expected to be particularly useful in treating long-standing cases of the disease and cases complicated by high blood pressure and heart and kidney disorders, the article indicates.

"The results of clinical studies in a series of 117 patients treated with this agent establish its great usefulness against Parkinsonian disorders and its remarkable freedom from disturbing side reactions," the doctors point out.

"Besides," they say, "it has an unusual cerebral-stimulating action, which is particularly effective in combating the depression and inertia prevalent among these patients. It is safe for use by the young and the old, the ambulatory and the infirm, the hypertensive, the cardiac, and the nephritic.

"It recommends itself as the drug of choice in arteriosclerotic and idiopathic (spontaneous) cases, and should be tried regularly in post-encephalitic cases in which other forms of medication prove disturbing or ineffectual."

LIGHTS, BLOOD BANKS, ARC WELDING REPORTED AS INDUSTRIAL HAZARDS

Prolonged close exposure to fluorescent lighting in industry apparently can cause a mild skin disturbance, according to an article in the August 27 *Journal of the American Medical Association*.

Apparatus used in blood banks and exposure to arc welding also are reported as industrial hazards in other articles in the same issue.

Investigation of working conditions in a large pharmaceutic manufacturing organization indicates that fluorescent lights at a short distance from workers were the cause of redness, dryness, and occasional itching of exposed areas of the skin, says Dr. R. Ralph Bresler, Philadelphia, chairman of the Industrial Health Section of the Philadelphia County Medical Society.

The light tubes in use were 20 watt and appeared to give off only a minute quantity of ultraviolet light. Over a period of six to eight hours and at a working distance of only 10 to 14 inches, however, this quantity might produce such a skin condition, Dr. Bresler points out.

The skin disturbances of workers disappeared when plate glass shields which absorbed ultraviolet radiations were placed around the fluorescent light tubes, he says.

Serum hepatitis was contracted by a blood bank worker, says Drs. Sidney Leibowitz, Louis Greenwald, Ira Cohen, and Joseph Litwins, New York, adding:

"The history of multiple needle pricks on hand and fingers sustained by this patient in the course of her duties at the blood bank persuades us to conclude that this was the mode of her infection.

"The hazard which this case illustrates has wide applicability. It points to the obvious necessity for caution on the part of a physician or technician who engages in any type of needling of human beings to protect himself against accidental pricking, even when sterile instruments are employed."

Two cases of radiodermatitis of the lip are attributed to exposure to arc welding by Dr. Sidney Vernon of New Brunswick, N. J. The typical lesion produced may be precancerous.

DIABETES ACCELERATES HARDENING OF ARTERIES

Diabetes accelerates atherosclerosis of the coronary arteries and has a more pronounced effect in females than in males, two Minneapolis physicians report in the current *Archives of Pathology*, a publication of the American Medical Association.

Drs. B. J. Clawson and E. T. Bell based their findings on an analysis of 50,775 postmortem records on file in the department of pathology of the University of Minnesota, covering the period from 1910 to 1947. There were 49,593 nondiabetic and 1,182 diabetic subjects.

Coronary disease caused 10 per cent of the

deaths among nondiabetic males and 19.5 per cent of the deaths in the diabetic group.

Only 5.8 per cent of the females in the non-diabetic group died of coronary disease, but the mortality among females in the diabetic group was 11.4 per cent.

The doctors also found that about 4 per cent of the deaths due to coronary disease in males and nearly 14 per cent in females are associated with diabetes.

ADDITIONAL RESEARCH IS NEEDED TO PROVIDE CURE FOR ARTHRITIS

Despite the discovery of cortisone, formerly called Compound E, additional research is needed to provide a cure for rheumatoid arthritis.

"Cortisone, which today costs almost a hundred dollars for a single injection, is at best a highly effective palliative—a means of relief while it is being taken," says an article prepared under the guidance of the Arthritis and Rheumatism Foundation. The article appears in the September issue of *Hygeia*, health magazine of the American Medical Association.

"A cure for rheumatoid arthritis and for other rheumatic diseases is yet to be found," it emphasizes.

According to Dr. Philip S. Hench of the Mayo Clinic, Rochester, Minn., member of the medical and scientific committee of the foundation, results show that cortisone cannot be given for a few days or weeks and cure rheumatoid arthritis. The effect lasts only while the hormone is taken daily. A sharp relapse occurs in a few days after the injections cease.

Important research also remains to be done on cortisone. At present, Dr. Hench prefers not to have the results of his work referred to as a treatment. The effects of overdosage, to cite an example, must be tested thoroughly.

Supply of the hormone is the greatest problem in making it generally available, the article points out. Present methods of production were evolved by Dr. Edward Kendall, Mayo Clinic chemist. They require a basic ingredient known as desoxycholic acid, which is obtained from the bile of oxen. Only one pound of this ingredient can be obtained from 130 pounds of bile.

A hormone called ACTH, similar in effect to cortisone, can be obtained only in a tiny gland, the pituitary, from hogs. It takes 1,200 hogs to yield a single pound of the gland substance—in which ACTH is only a small fraction.

"Science must discover some natural source more plentiful than these," the article says, "or achieve a synthetic method—a way to make cortisone or ACTH from raw chemicals—before your family doctor will be able to treat you with the hormones."

The hope for relief may materialize in a few months. But several years may be required before many problems involved in treating patients with cortisone are solved.

So far, cortisone has been found effective only

in rheumatoid arthritis, according to the article. But it may prove valuable in the treatment of other rheumatic diseases such as rheumatic fever, Marie-Strumpell disease (immobility of the segments of the spine), and gout, and may be useful in cases of mental illness, asthma, migraine, and other ailments.

A survey made recently by the foundation disclosed that 222 research projects in rheumatic disease were being conducted at 51 of 70 schools of medicine in the United States. All 70 institutions expressed strong interest in doing more research if financial support could be obtained.

SUPERSTITION REPORTED DANGER IN CHILD RAISING

Specialists in children's diseases report that often one out of four questions asked by young mothers is based on superstition, says an article by Mrs. Estelle Bond, wife of a Boston surgeon, in the current issue of *Hygeia*, health magazine of the American Medical Association.

"Unhappily, superstitions are likely to have more serious than comic results," Mrs. Bond writes. "Perhaps the most dangerous misbeliefs are those surrounding that process commonly undergone by every human being—teething. The very universality of the experience has engendered as formidable an army of old wives' tales as ever bucked the persevering pediatrician."

Among the most common superstitions still existing are: Babies are blind at birth, like kittens; prenatal influences, such as frights, may cause birthmarks; it is bad luck to cut a baby's hair before he is old enough to go to a barber; baby must not look into a mirror until he or she has teeth, a baby who looks at the sky will have crossed eyes; a child's growth will be stunted if he crawls between someone's legs or allows someone to step over him.

REPORTS BLACK HAIR TONGUE DEVELOPMENT OF PENICILLIN USE

Discoloration of the tongue and the growth of fine hairs on the tongue associated with the administration of penicillin is reported in the August 13 *Journal of the American Medical Association*.

Dr. Samuel A. Wolfson of Los Angeles presents four cases of black hairy tongue, a condition which has been known for many years but only recently recognized as a reaction to penicillin.

Black hairy tongue is an uncommon disease of unknown causation, although it is thought in some instances to be due to a congenital abnormality which develops in later life. The filiform papillae (small elevations on the tongue) turn dark and become densely matted by hair-like filaments that may grow as long as one-half inch. In penicillin therapy, the condition usually occurs in 48 hours.

"Once the discoloration has developed it can be reversed by interrupting the penicillin ther-

apy," Dr. Wolfson says. "The tongue will return to its normal state in about one month. Adjunctive treatment with mouth washes and rinses is of doubtful value."

Saying that the condition resolved itself when penicillin therapy was discontinued, he adds:

"This and the absence of recurrences are strong evidence that penicillin plays a role in the production of the black tongue, albeit the manner in which it acts is still uncertain."

Commenting on the report of a British physician who noted discoloration of the tongue in 20 per cent of a group observed for that specific effect, Dr. Wolfson says: "I am sure that figure will prove not to be too high if careful observations are made in all persons using penicillin, particularly oral preparations. I feel certain that many discolored tongues are seen. However, the manifestation is not recognized as due to penicillin but attributed to the associated illness."

"On the tongues of lighter coloration the condition could easily escape detection. Undoubtedly, the manifestation will be more frequently recognized as its association with penicillin becomes more widely known."

He expresses the conclusion that the antibiotic acts as an irritant, although the precise mechanism of its action is yet to be demonstrated.

LUNG CANCER INCIDENCE IS HIGH IN ASBESTOSIS

Medical studies indicate a causal relation between asbestosis (a lung disease caused by inhaling asbestos) and cancer of the lung, an editorial in the August 13 *Journal of the American Medical Association*, says.

It reports that since 1935, American, English and German physicians have reported 23 cases of coexistence of the two diseases. One series of 92 autopsies on patients with asbestosis showed 14 cases of asbestosis cancer, an incidence of 15 per cent. The normal rate of cancer of the lung among adults examined after death is about 1 per cent of all autopsies.

Commenting on this, the editorial says:

"Since some 20,000 workers are employed in the asbestos-producing industries of this country and Canada and many additional thousands in various asbestos-consuming industries, increased attention to this probable occupational hazard of cancer of the lung by the medical profession is desirable."

REPORT FOUR CASES OF CHINESE LIVER FLUKE INFECTION IN U. S.

Human infection with the Chinese liver fluke has been brought to the United States from China, according to two doctors from Mount Sinai Hospital, New York.

Writing in the August 6 issue of *The Journal of the American Medical Association*, Morton H. Edelman, M.D., and Clifford L. Spingarn, M.D., say that during the past 18 months they have

diagnosed the infection in four white patients living in New York City. All four came to this country from Shanghai, where they had lived for several years.

"To our knowledge these are the first cases of this disease among members of the white race to be observed in this country," the doctors write. "Discovery of these cases is another example of the global dissemination of regional diseases by the movement of populations as a result of the last war."

"It is likely that other persons infected are already in our midst or will live in the United States in the future. This possibility has been favored by the presence of our military forces in China, Korea, and Japan. A recent report stated that this disease was observed among American military personnel in China."

The infection, known medically as clonorchiasis, is contracted by eating raw or insufficiently cooked fresh water fish infected with the flat worms in an incompletely developed stage. Larvae of the flukes migrate from the digestive tract of human beings to the common bile duct and channels for bile in the liver, where they mature into adult worms. The majority of the adult worms live in the large bile ducts and produce distention, dilation, and eventual thickening of these passages. Involvement of the pancreas also occurs in some cases.

Among symptoms which may occur are low fever over a period of years and pain in the upper right portion of the abdomen. If the disease is progressive, ultimately cirrhosis of the liver, a hardening process in which normal liver cells are replaced by scar tissue, results.

Treatment of the infection with drugs is "not particularly satisfactory," the doctors point out, because the fluke is difficult to eliminate with drugs available.

Heaviest incidence of the disease is in the province of Kwangtung in South Central China, where 80 per cent of the population of Canton has been found to harbor the parasite. The disease occurs more often in South China than in North China. Doctors familiar with the disease have suggested that cancer of the liver may be related in some way to the infection, since both diseases are more frequent in the southern than in the northern part of the country.

In a study of fish-eating habits of Chinese infected with the fluke, it was observed that 58 per cent ate raw fish prepared in salads; 18 per cent ate raw fish dipped in boiling water, broth, or rice gruel; 14 per cent ate fish slightly fried; 6 per cent ate it dry; and 4 per cent cooked the external part leaving the inside uncooked.

Four infections reported among Hawaiians were acquired, presumably, by eating imported fish. A case in England probably involved infection in this manner, and in another case recently

reported the patient ate fish at a Chinese banquet.

Fish become infected from snails, which pick up the infection from human or animal excretions and liberate the flukes in a developmental stage in fresh water.

In China and Korea, the spread of the disease is favored by infection of cattle, dogs, and cats. Twenty-five per cent of the dogs in Peiping, China, and 8.5 per cent of the street dogs in Mukden, Manchuria, were found to be infected.

"The presence of the infection in animal hosts in North China, Manchuria, and Korea is an indication of the danger of infection when uncooked or insufficiently cooked fish are eaten in these areas," the doctors say.

REPORT MATERNAL DEATHS FROM DESERT FEVER

Deaths of four women during pregnancy and at childbirth from desert fever are reported in the August 6 issue of *The Journal of the American Medical Association* by Drs. Leroy E. Smale and J. W. Birsner of Kern General Hospital, Bakersfield, Calif.

This disease, also called valley fever and known medically as coccidioidomycosis, is caused by a fungus. In the United States it occurs in Southern California, Southern Arizona, and parts of New Mexico.

Although many persons infected remain well, others develop symptoms resembling those of influenza, and progression into bronchitis and pneumonitis takes place in some cases.

In three of the patients, the disease attacked the membranes that envelop the brain and spinal cord, causing meningitis. One of the women received large doses of penicillin and streptomycin. Babies born to the women apparently were not infected with the disease.

Desert fever as a cause of maternal death has not been reported previously, the doctors say, adding:

"Unquestionably, other fatal and unrecognized cases have occurred in this area, or the subjects have migrated to other areas with a final diagnosis of maternal death due to meningitis of unspecified cause. We feel that other cases will be reported and that the pathogenesis of disseminated coccidioidomycosis as a fatal complication of pregnancy and as a cause of maternal death will become well known."

"It is recommended that, in a known endemic area for coccidioidomycosis, all pregnant patients with symptoms of the upper part of the respiratory tract have skin tests and be carefully followed for possible dissemination. It is also recommended that all pregnant patients with signs and symptoms of meningeal involvement or meningitis be studied carefully for infection with coccidioides."

GEORGIA DEPARTMENT OF PUBLIC HEALTH

MILK—ITS ASSETS AND LIABILITIES

There is a very appropriately expressed truism that "milk is nature's most nearly perfect food." From this we might infer that nature has not completely provided a perfect food. However, nature provides all foods and in various combinations that are conducive to life and health. Therefore, in the practice of nutrition, other foods should be added to milk to make a more balanced diet.

In the sustenance and survival of the young of mammals, milk is essential. In this respect nature has truly excelled in contributing to the sustenance and survival of the young. When nature provided for motherhood, provision was thus made for sustenance of the infant. Therefore, mothers' milk is generally considered par excellence.

Of the mammals, however, the cow, the most abundant contributor of milk, and sometimes referred to as the venerable milch cow giving generously of milk without complaint, probably deserves the greatest eulogy. If in so giving, she should jeopardize the lives of infants, children, and adults, let us not harshly condemn her, but place the responsibility upon those engaged in protecting the public health.

Across the continents of the world and through the pages of history, runs the story of the cow. We should venerate the cow and generally the bovine herd for the history of the cow parallels that of man. Man has depended upon this animal to provide milk, milk products, butter, cheese, the highest grade of meats, hides, and other invaluable products.

Even though milk may be called nature's most perfect food, it is one of the most vulnerable of all foods to health hazards chiefly because it is a most excellent medium for development and multiplication of bacteria. Milk is so rich in quality that its nutrients constitute admirable culture media for the growth of micro-organisms. Furthermore, milk as a food is a liquid with little natural protection against the invasion of such organisms. Eggs have shells, peas have pods, oranges, apples, peaches and bananas have skins, but the ingenuity of the sanitarian is the only safeguard for milk. Therefore, health departments, state and local, are concerned with the protection of milk from pathogenic bacteria.

Milk becomes infected with micro-organisms from three general sources: man, cow, and environment. During milking, cooling, bottling, and transporting, milk is handled by numerous persons. If any are careless in their personal hygiene, or are ill, or are disease carriers, any of the infectious diseases such as typhoid fever, scarlet fever, diphtheria, tuberculosis, possibly poliomyelitis, and other infectious germs may be introduced into the milk.

Another group of diseases may come from

an infected cow. If the udder is tuberculous or the milk contains the organisms of undulant fever, these diseases may be transmitted to man through the milk. One of the most serious and with high mortality is septic sore throat, the bacteria of which may infect the cow's udder from the milker.

If the milk is kept cold the organisms will not multiply and their effect may be negligible. However, if the milk is allowed to remain warm bacteria may multiply to enormous numbers and produce massive doses of infection. If the milk is properly pasteurized, all of the organisms of the above infections are destroyed. Occasional testing of both man and animal for these diseases may not insure complete safety. Disease testing together with sanitation is essential but cannot insure complete safety, therefore pasteurization is a most necessary adjunct.

Each year outbreaks of diseases borne by raw milk are reported to the Public Health Service by state and local health departments. In the fifteen year period from 1923 to 1937, inclusive, 639 raw milk-borne outbreaks were reported, involving 25,863 cases and 709 deaths. In order of their importance, the diseases included were (1) typhoid fever, 369 outbreaks, 6,461 cases, and 486 deaths; (2) septic sore throat, 75 outbreaks, 9,467 cases, and 117 deaths; (3) scarlet fever, 84 outbreaks, 5,725 cases, and 52 deaths; (4) dysentery and enteritis, 34 outbreaks, 1,560 cases, and 26 deaths; (5) para-typhoid fever, 23 outbreaks, 1,029 cases, and 22 deaths; (6) diphtheria, 13 outbreaks, 179 cases, and 4 deaths; (7) miscellaneous diseases including food poisoning, 41 outbreaks, 1,496 cases, and 2 deaths.

It should be noted that this compilation does not include sporadic cases of typhoid fever, scarlet fever, etc., since such sporadic cases have rarely been given sufficient epidemiological study to determine if raw milk was incriminated. Nor does it take note of such diseases as bovine tuberculosis, undulant fever, or infantile diarrhea which are milk-borne. Raw milk cannot be guaranteed as safe and that is why public health authorities stress the importance of pasteurized milk.

The solution of the problem of milk-borne diseases is stimulation of national, state, and local interest in a closely cooperative and co-ordinated effort in milk sanitation. Definite standards should be established and both intrastate and interstate reciprocal recognition should prevail. Milk that provides a high degree of quality and safety for one community should be accepted by another when measured by similar standards.

For many years the various state health departments attempted with only a measure of success the regulation of milk sanitation by varying state and municipal ordinances. During

this early period, however, there was a growing conviction that milk regulations should be more uniform, the chief reason being, of course, that with more uniformity of regulation by states, the dairy industry would not be subject to discriminatory practices. For instance, a dairy near the state line conforming to an ordinance in that state frequently could not distribute milk across the state line because of certain variation of requirements in the other state's ordinance. The same often held true in two cities within the same state. This led to studies in collaboration between the states and U. S. Public Health Service. One of the states early recognizing this need was Alabama and in January, 1923, at the request of the Alabama State Board of Health, the U. S. Health Service entered into a cooperative plan with the state to formulate and execute a state-wide milk sanitation program. It became evident that it would be necessary to accomplish five things, namely: (1) to develop an effective type of milk legislation, (2) to encourage the cities to enact it, (3) to insure its effective enforcement, (4) to encourage reciprocal recognition, and (5) to measure the results. This experience was particularly influential in perfecting the recommended U. S. Public Health Service Standard Milk Ordinance and Code which is generally in effect over the United States today.

This Milk Ordinance and Code is approved by the U. S. Public Health Service. Federal Security Agency, the Bureau of Dairy Industry, U. S. Department of Agriculture, and is recommended for adoption by states, cities and communities and designed particularly to effect greater uniformity of milk control practice in the United States. Furthermore, it is under a Board of Consultants, termed the Public Health Service Sanitary Advisory Board composed of Public Health Engineers, State Health Officers, City Health Offices, Dairy Industrialists, Bureau of Dairy Industry of the U. S. Department of Agriculture, and the Dairy Supply Industry.

The Milk Ordinance and Code is a bulletin containing 164 pages and it covers all phases of production, transportation, processing, handling, sampling, examination, grading, labeling, regrading, and sale of all milk and milk products sold for ultimate consumption. Indeed it may be compared to a textbook and it should be studied by all medical, sanitation, and nursing students.

Milk sanitation requires workers with training in engineering, medicine, chemistry, veterinary medicine, bacteriology, and epidemiology. Some of the sanitation requirements may be listed as follows: dairy barn and milk house design, dairy farm water supplies, dairy farm sewerage or excreta disposal, pasteurization plant design, pasteurization plant water and waste, plumbing and sanitary fixtures, design and operation of regenerators, thermometers, indicating and recording devices, leak protector valves, thermo-

static controls, and many other features.

Therefore, milk sanitation is a problem which now requires and will require increasingly in the future the attention of those professionally qualified in public health. It is rapidly developing into a very highly specialized service. The medical health officer, the veterinarian, the engineer, and the sanitarian must be responsible for the safety of milk supplies. In this they need the cooperation of all practicing physicians in the state.

L. M. CLARKSON, *Director
Public Health Engineering.*

MENTAL RETARDATION IN CHILDREN REVEALED BY X-RAY FILMS

Mental retardation, thyroid deficiency, lead poisoning and other abnormal conditions in children can be discovered by making x-ray films of their wrist bones, according to three Milwaukee pediatricians.

Writing in a current issue of the *American Journal of Diseases of Children*, published by the American Medical Association, M. G. Peterman, M.D., W. B. Frey, M.D., and J. D. Kaster, M.D., say that delayed maturation of the wrist bones in children is often associated with mental retardation and hypothyroidism, and that lead poisoning may be indicated by the bone formation.

The films are such a valuable aid in diagnosis that they should be made of every child who seeks medical attention, the doctors believe.

X-ray films of the wrists of 684 children in the Milwaukee County Hospital Pediatric Service and in private practice were studied by the doctors, according to the article. In 69 cases the films showed "evidence of a pathologic process."

"Delayed ossification was noted to be associated with mental retardation and congenital heart disease, cerebral birth injury, disease of the pancreas, and defective brain development with hypothyroidism and allergy," the doctors say.

"One patient was observed in whom a delayed bone age was found accompanying mental retardation and dwarfism.

"In borderline cases of hypothyroidism in children, retardation of bone maturation first cast light on the underlying condition. A delay in ossification occurs almost always in long-standing, untreated hypothyroidism in children.

"Use of basal metabolism studies is of little clinical value in children.

"Lead intoxication, from prolonged ingestion or inhalation by infants and children, may be suggested by the heavy transverse lines which develop in the ends of the shafts of long bones."

X-ray films first suggested the underlying pathologic process of lead poisoning in two cases in the study, the doctors report.

Other conditions in which the x-ray films of children's wrist bones aid diagnosis are syphilis, disease of the pancreas, tumors, rickets, and scurvy, the doctors say, adding:

"Some pathologic conditions of children can be discovered at an early stage, while in others, which are in advanced or clinically obscure stages, focus may be brought for the first time on the underlying cause by use of this procedure."

Remember, please, that the Medical Association of Georgia will hold its 100th annual session in Macon, May 18-21, 1950. Please be human, delay what you really intended to do; namely, make plans to attend this important meeting. Make your hotel reservations now.

**WOMAN'S AUXILIARY
TO THE
MEDICAL ASSOCIATION OF GEORGIA**

1949 - 1950

OFFICERS:

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MRS. J. HARRY ROGERS
699 E. Paces Ferry Rd., N. E.
Atlanta, Ga.

President-Elect
Chairman Organization
MRS. L. W. WILLIAMS
135 East 45th Street
Savannah, Ga.

First Vice-President
Chairman Program
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Scrapbook Chairman
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**ANNUAL REPORT TO THE
MEDICAL ASSOCIATION OF GEORGIA**
Savannah
May 10, 1949

Mr. President and members of the House of Delegates: As president of the Woman's Auxiliary to the Medical Association of Georgia, I am pleased to submit the following report of work accomplished from May 1948 to May 1949.

This, the Twenty-Fourth Annual Convention of the Woman's Auxiliary to the Medical Association of Georgia, should be a memorable occasion, as it is celebrating the Twenty-Fifth Anniversary of the Woman's Auxiliary concurrently with the Centennial Anniversary of the Medical Association of Georgia.

The Auxiliary Executive Board met April 30, 1948 in Atlanta; committee chairmen were appointed and organization plans for the year's work were discussed.

By invitation of Dr. C. H. Richardson, chairman of the Advisory Committee from the Medical Association of Georgia, the Executive Board of the Woman's Auxiliary met in Macon, August 17, 1948, at the Regional Office of the State

Historian
MRS. LUTHER H. WOLFF
1818 Slade Drive
Columbus, Ga.

Parliamentarian
MRS. EUSTACE A. ALLEN
18 Collier Road, N. W.
Atlanta, Ga.

**CHAIRMAN OF
STANDING COMMITTEES**

Achievement Award
MRS. RALPH B. MCCORD
1002 Collinswood Road
Rome, Ga.

Archives
MRS. C. W. ROBERTS
75 Ponce de Leon Ave., N. E.
Atlanta, Ga.

Budget
MRS. RALPH H. CHANEY
Bransford Road
Augusta, Ga.

Bulletin
MRS. WILLIAM K. JORDAN
203 High Street
Macon, Ga.

Doctors' Day
MRS. LLOYD WOOD
200 West King Street
Dalton, Ga.

Editorial
MRS. BEN HILL CLIFTON
1893 Wycliff Road, N. W.
Atlanta, Ga.

*Mrs. J. Bonar White Exhibits
and Scrapbook Awards*

MRS. RICHARD K. WINSTON
807 Wilson Avenue
Tifton, Ga.

Legislation
MRS. MARION ESTES
Rt. 1, Lumpkin Road
Augusta, Ga.
Public Relations
MRS. SHELLEY C. DAVIS
1259 Peachtree Battle Ave.,
Atlanta, Ga.
*Research in Romance
of Medicine*
MRS. WILBUR D. HALL
Calhoun, Ga.
Revisions
MRS. LEE HOWARD
625 East 44th Street
Savannah, Ga.
Student Loan Fund
MRS. J. LON KING
223 Buford Place
Macon, Ga.
Mrs. James N. Brawner Trophy
MRS. SAM ANDERSON
36 Sheridan Drive
Atlanta, Ga.
Advisory Committee
DR. MURDOCK EQUEN, Chm.
Atlanta, Ga.
DR. J. HARRY ROGERS
Atlanta, Ga.
DR. RALPH H. CHANEY
Augusta, Ga.
DR. EUSTACE A. ALLEN
Atlanta, Ga.
DR. W. G. ELLIOTT
Cuthbert, Ga.
DR. W. BRUCE SCHAEFER
Toccoa, Ga.
DR. C. FULMER HOLTON
Savannah, Ga.
DR. SHELLEY C. DAVIS
Atlanta, Ga.
DR. THOMAS L. ROSS, JR.
Macon, Ga.

Department of Health, along with six members of the Advisory Committee, as follows: Dr. C. H. Richardson, chairman; Dr. Enoch Callaway, president-elect of the Medical Association; Dr. Sam Anderson, Dr. Olin S. Cofer, Dr. Shelley C. Davis, and Dr. Bruce Schaefer. Dr. Richardson and Dr. Callaway spoke to the group at a luncheon meeting in the Sidney Lanier Home. Under the splendid leadership of Dr. Richardson and the Advisory Committee the members of the Auxiliary left the meetings with greater determination to accomplish the objectives approved for the year.

Following the luncheon meeting the county presidents, presidents-elect, district managers, past-presidents, state chairmen of standing committees and officers held the Second Annual School of Instruction. The theme, "LEARN, THINK AND ACT" was adopted.

Five objectives for the year were stressed:

1. Strive for an increased membership. Every doctor's wife a member, and an auxiliary in every county where there is a medical society.

2. Have at least one program on medical ethics.

3. Have a definite health education program.
4. Sponsor nurses recruitment, and make a survey of the nursing profession in Georgia.
5. Social Service Committee named and have as a project the obtaining of securing as many camellia plants as possible to be planted on the grounds of the State Hospital at Milledgeville.

The president-elect, organization chairman, Mrs. J. Harry Rogers, reports an increase in membership from 960 in 1948 to 1038 in 1949, with an increase from 27 to 30 county auxiliaries. Eight districts are organized; the Fourth and Tenth Districts preparing to organize.

Health education being one of the primary objectives of the Auxiliary, and under the leadership of Mrs. J. R. S. Mays, first vice-president, growth and expansion have been accomplished.

Printed copies of the 10-Point Health Program of the American Medical Association were distributed and used as guides for the health education work.

Fifteen health educational programs were held during the year that were open to the public, with approximate attendance of 3850. The *Public Is Health Conscious*, therefore the auxiliaries have been able to carry on an effective health program.

Approximately 30,000 pieces of health literature have been distributed; 300 volumes of medical books and science literature were donated to university libraries, and to several high and grammar schools, white and colored.

Our members are leaders in their community health activities, as chairmen of various committees and drives in health promotion. I am proud to report that Mrs. R. K. Winston, treasurer, was chosen as a member of the *Georgia Better Health Conference* executive committee, being elected the chairman. Several members actively participated in the Georgia Better Health Conference, held in Macon, September 29-30, 1948.

Many and varied are the community health and welfare projects and activities of the auxiliaries as a unit and individually, such as: The Cerebral Palsy School, Blood Banks, Hemoglobin Tests, Tuberculosis Chest X-Rays, Easter Sale for Crippled Children, sponsored health clinics of many kinds, immunization programs, and put on several radio programs.

The Visual Education chairman, Mrs. Ralph Fowler, has worked in close contact with Health Education, and 48 films have been shown. Splendid cooperation was received from the State Department of Health in assisting with our health program.

Legislation, Mrs. John L. Elliott, chairman. The Auxiliary has been quietly, actively, and effectively working on passage of legislation pertaining to medicine. The chairman has kept the Auxiliary posted as to legislation pending in the National Congress and State Legislature. She has rendered invaluable and outstanding

service to the Auxiliary and the Medical Association.

Dr. S. A. Kirkland, chairman of the Public Policy and Legislation of the Medical Association of Georgia, whose responsibility it was to get the Prepayment Medical Care Bill drawn up for the recent Georgia Legislature, was contacted and information sought from him and the Association's attorney, the late Mr. Grover Middlebrooks.

Papers have been written and read to civic organizations on "Discussion of Compulsory Health Insurance." Three passed resolutions opposing Socialized Medicine, and Compulsory Health Insurance. The Georgia Federation of Women's Clubs, for lack of a quorum, did not act on the resolutions in their state meeting in Augusta. On April 27, 1949, the General Federated Women's Clubs in convention in Florida adopted resolutions against Compulsory Health Insurance.

The Auxiliary has been intensely learning, thinking and acting on Socialized Medicine, and stands ready at all times to cooperate with the medical profession in its immediate objective to defeat the Compulsory Health Insurance program in the National Congress.

Public Relations, chairman Mrs. Shelley Davis. One of the purposes of this committee has been to extend the aims of the medical profession through the wives of the doctors, to the various organizations which look to the advancement of Health Education, also to contribute toward shaping the community trends with respect to health for the good of the public and the advancement of medical science. The Fulton County Medical Society Auxiliary alone has provided speakers to fifty different organizations, at which the question of Socialized Medicine was brought up for discussion. Every auxiliary in the State has reported activities which attempted to clarify public opinion on health matters. Through its contacts with other organizations the Auxiliary keeps posted as to what the public thinks, and lets the people know the true facts and reasons as to what the medical profession does.

Mrs. Shelley Davis conducted a panel on Community Action for Better Health at the Georgia Citizens Council meeting (annual conference) and had a most active part in appearing before the Georgia Legislature in behalf of the Premarital Health or Physical Examination Legislation. May I say that Mrs. Davis' activities in this matter were largely responsible for the passage of this bill and its enactment into law by the recent Legislature.

Hygeia chairman, Mrs. T. A. Peterson, second vice-president, reported 349 subscriptions to *Hygeia* magazine. Copies placed were in libraries, schools, hospitals and other public places. Every doctor's office should have at least one copy of *Hygeia* on their reception room table. Many such copies have been placed there by auxiliary members.

Bulletin chairman, Mrs. Walker L. Custis, reports 102 subscriptions, an increase from last year's 86.

Scrapbook chairman, Mrs. B. E. Collins, has kept the Auxiliary Scrapbook for the past year and it is on display at the convention. She has received 70 pieces of publicity from twelve county auxiliaries.

Historian, Mrs. W. J. Williams chairman, collected 16 county histories for the year.

Archives chairman, Mrs. Eustace Allen, has brought the records up to date. She has a complete history of the organization, the minutes of each convention beginning with 1925, the reports each president made to the House of Delegates of the Medical Association and the Woman's Auxiliary. In addition, the Archives contain two books of minutes, the transfer file, one scrapbook beginning with the organization in 1924, all programs of conventions since 1926, also the pages allotted to the Auxiliary from *The Journal of the Medical Association of Georgia*.

Achievement Award, Mrs. Ralph B. McCord chairman, contacted all county auxiliaries, and 17 sent in reports to compete for this award. This award is given by Mrs. Olin S. Cofer to the Auxiliary doing the most outstanding single accomplishment for the year. The award went to the Tift County Auxiliary at the 1948 State Convention.

Mrs. J. Bonar White Exhibit and Scrapbook Awards, Mrs. J. L. Gallemore, chairman. Eight county auxiliaries signified their intentions to exhibit scrapbooks at the convention. Tift County Auxiliary won these awards last year.

Mrs. James N. Brawner Trophy, Mrs. W. G. Elliott chairman. This award is given each year to the auxiliary meeting the greatest number of requirements of the current year's work. This award was to Tift County in 1948. There are 16 auxiliaries competing for the cup this year.

Doctors' Day, Mrs. Robert Greenblatt chairman. Every county auxiliary reported participating in observance with banquets, dinners, luncheons, and teas. Chatham County joined the doctors in dedicating their new medical hall; they kept open house for the public in the afternoon and served refreshments to the doctors in the evening. The Bibb County Auxiliary placed books in the City Library in memory of deceased doctors, Dr. C. C. Harrold, Dr. Olin Weaver, and Dr. C. L. Penington. Auxiliaries notified news editors of Doctors' Day and the ministers, who talked about the day and the doctors in their respective sermons. Cards were sent to doctors. Wives sent red carnations to their doctor husbands to wear for the day, and flowers were placed in doctors' offices, in hospitals and on doctors' graves.

Press and Publicity, Mrs. Clifton G. Kemper chairman. The Medical Association has cooperated with the Auxiliary in its publicity program. Articles have been published in *The Journal of the Medical Association of Georgia*.

The county auxiliaries secure their publicity through their respective local and county papers.

Rewards, Mrs. Lee Howard, chairman, states that we must revise our state constitution since the National Association increased the dues in 1948 from twenty-five cents to one dollar per member per annum. The state dues are fifty cents per member per annum, and these must be increased if the Auxiliary is to perform the activities and aims as planned.

Research in Romance of Medicine, Mrs. Edgar H. Greene, chairman. Active work has been carried out in the field of Romance and Research of Medicine, and the records of this work are used in writing the History of Georgia Doctors. Cobb County Auxiliary had for their main objective or project for the year, "Romance and Research of Medicine in Cobb County." They wrote biographies of every doctor who had practiced medicine in the county since it was settled. Much material has been compiled by the chairman and may be secured when desired. Ten county auxiliaries contributed to this project.

Student Loan Fund, Mrs. J. Lon King chairman.

Balance on hand April 26, 1948	\$3,759.54
Receipts from loans	\$772.40
Interest on deposits	18.77
Contributions from Aux.	203.00

Total Receipts	\$994.17	\$ 994.17

		\$4,753.71

Disbursements:	
Loans to Students	\$600.00
Payment Insurance Policy	18.40

Total	\$618.40	\$618.40

		\$4,135.31

Nurses Recruitment and Survey of the Nursing Profession in Georgia, Mrs. Ralph Chaney chairman. Eleven county auxiliaries participated in this program. Valuable information was collected.

The Social Service Committee, Mrs. W. K. Jordan chairman. This committee has turned in a splendid report for this project, the establishment of a Camellia Garden at the Milledgeville State Hospital. The objectives of this project for the year were: (1) a project at the State Hospital which would prove of therapeutic value to the inmates there who represent every county in the State, and (2) which would focus public interest on this institution in an effort to relieve it from political domination, and this unfortunate type of illness from prejudices and beliefs. Some delay has been encountered because of change in State and Hospital Administrations.

A camellia garden was laid out and planting was begun on April 26, 1949; 63 camellias, 960 azaleas, 50 dogwoods, 120 abelias, and 30 spireas have been planted. 33 counties have con-

tributed a total of \$715.58 of which \$473.85 has been spent for plants, leaving a balance on hand of \$241.73. Mrs. W. K. Jordan, Mrs. T. C. Clodfelter and many others have done a magnificent job under very trying conditions. You are cordially invited to visit the Camellia Garden and watch its growth.

The Woman's Auxiliary may be very proud of the progress that it has made in its 25 years of organization. The members join me in extending heartfelt thanks to you who have been steadfast in support of our work through the years. Without your help we would have been powerless; with your help we have been able to make progress which has been recorded in the preceding pages. May we continue to "Learn, Think and Act," thus maintaining high ideals of service.

Respectfully submitted,
MRS. SAM A. ANDERSON, President,
Woman's Auxiliary of the
Medical Association of Georgia,
1948-1949.

MEDICAL ASSOCIATION OF GEORGIA
Financial Statement of Cash Assets
April 1, 1948 to March 31, 1949

RECEIPTS

April 1, 1948:

Cash in Citizens & Southern National Bank subject to check	\$12,318.47
Six \$1,000 U. S. Government Bonds, with accrued interest, Series D, 337880-85, June, 1939, 10-year bonds	5,880.00
Four \$1,000 U. S. Government Bonds, with accrued interest, Series D, 843380-83, January 1940, 10-year bonds	3,840.00
One \$10,000 U. S. Government Bond, with accrued interest, Series F, X183923, June 1944, 12-year bond	7,860.00
One \$5,000 U. S. Government Bond, Series G, V562461, July 1945, 12-year bond	4,740.00
One \$10,000 U. S. Government Bond, Series G, X507962, July 1945, 12-year bond	9,480.00
One \$5,000 U. S. Government Bond, Series G, V632061, March 1947, 12-year bond	4,810.00
One \$10,000 U. S. Government Bond, Series G, X641668, March 1947, 12-year-old	9,620.00
One \$5,000 U. S. Government Bond, Series G, V633024, January 1948, 12-year bond	4,890.00
One \$10,000 U. S. Government Bond, Series G, X642297, January 1948, 12-year bond	9,780.00
Standard Federal Savings and Loan Asso- ciation, with interest	6,386.91
Receipts from operating (April 1, 1948 to March 31, 1949)	46,531.16
Abner Wellborn Calhoun Lectureship Fund: Securities held by The Citizens and Southern National Bank, Atlanta. Cur- rent value	5,172.39
	\$131,308.93

DISBURSEMENTS

March 31, 1949:

Disbursements itemized	\$33,874.42
Cash in bank subject to check	24,975.21
Six \$1,000 U. S. Government Bonds	5,880.00
Four \$1,000 U. S. Government Bonds	3,840.00
One \$10,000 U. S. Government Bond	7,860.00

One \$5,000 U. S. Government Bond	4,740.00
One \$10,000 U. S. Government Bond	9,480.00
One \$5,000 U. S. Government Bond	4,810.00
One \$10,000 U. S. Government Bond	9,620.00
One \$5,000 U. S. Government Bond	4,890.00
One \$10,000 U. S. Government Bond	9,780.00
Standard Federal Savings and Loan Association	6,386.91
Abner Wellborn Calhoun Lectureship Fund	5,172.39
	\$131,308.93

MEDICAL ASSOCIATION OF GEORGIA

Receipts and Disbursements

April 1, 1948 to March 31, 1949

RECEIPTS

Cash on hand subject to check	\$12,318.47
Receipts (other than accrued interest)	46,531.16

DISBURSEMENTS

Disbursements itemized	\$33,874.42
Cash in bank subject to check	24,975.21

**THE JOURNAL OF THE MEDICAL ASSOCIATION
OF GEORGIA**

Receipts and Disbursements

April 1, 1948 to March 31, 1949

RECEIPTS

Advertising	\$13,194.16
Membership subscriptions	12,227.00
Regular subscriptions	187.00

DISBURSEMENTS

Printing and mailing	\$11,954.05
Salaries	3,675.00
Postage	485.00
Engraving	440.36
Extra secretarial help	375.00
Commission on advertising	256.48
News clippings	60.00
Copyright	72.00
Addressograph	41.97
Envelopes for mailing The Journal	389.13
Gain	7,859.17

MEDICAL ASSOCIATION OF GEORGIA

Receipts and Disbursements

April 1, 1948 to March 31, 1949

SOURCES OF INCOME

Dues	\$24,454.00
Advertising	13,194.16
Exhibits	7,146.00
AMA Assessment Fund	425.00
Interest	1,488.31
Abner Wellborn Calhoun Lec- tureship Fund	5,172.39
Subscriptions	187.00

DISBURSEMENTS

Itemized expenses	\$33,874.42
Gain	18,192.44
April 1, 1948:	
Cash and cash assets	\$79,242.07
Gain in cash and cash assets	18,192.44
March 31, 1949:	
Cash and cash assets (March 31, 1949)	97,434.51

INCOME			Exhibit	196.00	2,959.23
April 1, 1948 to March 31, 1949					
Date	Deposited in Bank	Sources	Amount		
April 6, 1948	Dues	\$4,883.00		March 4, 1949	Dues 4,178.00
	Ads	86.00			AMA Assessment Fund 25.00
	Subscription	2.00	\$ 4,971.00		Interest U. S. Bonds 187.50
April 23, 1948	Dues	2,148.00			Ads 150.82
	Ads	904.59	3,054.59	Subscriptions 15.50	4,556.82
	Subscription	2.00			
May 7, 1948	Dues	1,087.00		March 24, 1949	Dues 2,072.00
	Ads	61.36			Ads 1,141.49
	Subscription	3.00			Subscriptions 34.00
	Exhibits	850.00	2,001.36		Exhibits 700.00
June 5, 1948	Dues	487.00		March 31, 1949	Dues 1,610.00
	Ads	842.23			Ads 42.21
	Subscriptions	7.00			
	Exhibits	350.00	1,686.23	Total	\$46,531.16
June 21, 1948	Dues	80.00			
	Ads	969.76			
	Subscriptions	13.00			
	Exhibit	175.00			
July 14, 1948	Dues	265.00			
	Ads	143.72			
	Interest U. S.				
	Bonds	375.00	786.72		
	Subscription	3.00			
July 30, 1948	Dues	85.00			
	Ads	807.59			
	Subscriptions	2.00	894.59		
Aug. 25, 1948	Dues	105.00			
	Ads	1,324.83			
	Subscriptions	6.00	1,435.83		
Sept. 24, 1948	Dues	449.00			
	Ads	900.84			
	Interest U. S.				
	Bonds	187.50	1,547.34		
	Subscriptions	10.00			
Oct. 20, 1948	Dues	440.00			
	Ads	1,013.48			
	Subscription	1.00	1,454.48		
Nov. 24, 1948	Dues	560.00			
	Ads	1,032.46			
	Subscriptions	24.00	6,252.37		
Dec. 21, 1948	Dues	717.00			
	Ads	1,644.37			
	Subscriptions	12.00			
	Exhibits	3,879.00			
Jan. 17, 1949	Dues	1,305.00			
	Ads	1,062.98			
	Interest U. S.				
	Bonds	375.00	3,507.98		
	Subscriptions	19.00			
	Exhibits	746.00			
Feb. 2, 1949	Dues (AMA 275)	2,678.00			
	Ads	23.20			
	Subscriptions	17.50	2,968.70		
	Exhibits	250.00			
Feb. 18, 1949	Dues (AMA 125)	1,705.00			
	Ads	1,042.23			
	Subscriptions	16.00			
MEDICAL ASSOCIATION OF GEORGIA					
<i>Disbursements Itemized</i>					
April 1, 1948 to March 31, 1949					
Check Number	Name	Amount			
1,237.76	5051—Grover Middlebrooks, Attorney Fee for Attorney Grady Rawls, Albany In re: Mrs. Merrill H. Jones vs. Dr. E. E. Moseley, Donalsonville	\$ 250.00			
786.72	5052—Dr. Spencer A. Kirkland Expenses in connection with Committee on Public Policy and Legislation	50.00			
894.59	5053—Dr. Jas. L. Campbell Expenses in connection with Committee on Public Policy and Legislation	50.00			
1,435.83	5054—Dr. Edgar H. Greene Expenses in connection with Committee on Public Policy and Legislation	50.00			
1,547.34	5055—Dr. Edgar D. Shanks Travel expenses, incidentals, and Public Policy and Legislation	334.00			
1,454.48	5056—Dr. W. A. Selman Expenses to attend A.M.A. Committee meeting for National Emergency Medical Service	150.00			
6,252.37	5057—Dr. John B. Fitts Expenses to attend A.M.A. Committee meeting for National Emergency Medical Service	150.00			
	5058—Lon F. Livingston, Postmaster Postage deposit to cover mailings of The Journal	100.00			
	5059—Mrs. G. R. Sims Extra secretarial work Jan. 1, 1948 to March 31, 1948	75.00			
	5060—Collector of Internal Revenue Income tax withheld from salaries, January, February and March 1948; Edgar D. Shanks, M.D.	\$57.90			
		Viola Berry 72.60			
	5061—St. Louis Button Company Eleven hundred fifty badges for the annual session of the Association, Atlanta, April 27-30, 1948	118.47			
	5062—Southern Bell Tel. & Tel. Company, Inc. Service to March 21, 1948	15.20			
	5063—Southern Press Clipping Bureau Clippings furnished during March and April 1948	10.00			
	5064—Lon-foy Flowers, Inc. Flowers	10.00			
	5065—Ansley Hotel Public Policy and Legislation expenses	5.60			
	5066—The National Library Bindery Company Binding 12 volumes of 1947 copies of The Journal	34.20			

5067—Franklin Printing & Mfg. Company Printing and mailing 2500 copies of The Journal March 1948.....	972.75	hibitors Atlanta session 1948..... Virgil W. Shepard	188.50
5068—Arcraft Engraving Company Cuts of illustration for The Journal.....	41.00	Rental and drayage on 15 tables for technical exhibitors 98th annual ses- sion	30.00
5069—Lon F. Livingston, Postmaster Postage	263.00	5093—Baxter Lumber Company Material for scientific exhibits 98th annual session	21.80
5070—Viola Berry For miscellaneous services in connection with technical and scientific exhibits for Ninety-Eighth annual session of the Medical Association of Georgia.....	40.00	5094—Calhoun Company Projection services including 2x2 slide projector and opaque projector for 98th annual session	84.75
5071—Dr. Henry K. Beecher Abner Wellborn Calhoun Lectureship Fund	200.00	5095—J. D. Grant Expenses for supervision, labor and materials in connection with technical and scientific exhibits Atlanta session 1948	377.94
5072—J. D. Grant Expenses for Scientific and Technical exhibits 98th Annual Session.....	150.00	5096—Dr. C. L. Ayers For typing report of Reference Commit- tee No. 1 at annual session.....	2.00
5073—Mrs. E. Z. Huff Help at registration desk for 98th annual session	30.00	5097—George R. Herrmann, M.D. Expenses as guest speaker at the At- lanta session	123.45
5074—Mrs. J. C. Thebaut Help at registration desk for 98th annual session	30.00	5098—Fulton County Medical Society Donation to Fulton County Medical Society Library\$500.00 Storage on scientific equipment 35.00 From May 23, 1948 to May 23, 1949.....	535.00
5075—Edgar D. Shanks, M.D. Salary for Secretary-Treasurer April 1948, less income tax withheld from April salary	230.70	5099—Dr. Thomas Findley Expenses as guest speaker at the At- lanta session	52.28
5076—Viola Berry Salary for Executive Secretary April 1948, less income tax withheld from April salary	5100—Sullivan Electric Company Electrical work for the 98th annual session of the Association	189.50	
5077—Member Pension from Benevolent Fund.....	222.70	5101—Edgar D. Shanks, M.D. Salary for Secretary-Treasurer May 1948, less income tax withheld from May salary	237.30
5078—Dr. Steve P. Kenyon Extra long distance phone calls in con- nection with the office of President.....	62.26	5102—Viola Berry Salary for Executive Secretary May 1948, less income tax withheld from May salary	229.00
5079—Dr. Edgar H. Greene Honorary for President 1948-1949.....	300.00	5103—Member Pension from Benevolent Fund	50.00
5080—Eddie Thompson Extra labor for commercial exhibits 98th annual session	6.20	5104—Lon F. Livingston, Postmaster Postage	40.00
5081—Southern Bell Tel. & Tel. Company, Inc. Service to April 21, 1948.....	17.74	5105—Olin H. Weaver, M.D. Payment on expenses as delegate to annual session of A.M.A., June 21-25, 1948, Chicago	200.00
5082—Atlanta Linen Service Linen service March and April 1948.....	11.45	5106—Allen H. Bunce, M.D. Payment on expenses as delegate to annual session of A.M.A., June 21-25, 1948, Chicago	200.00
5083—Carithers-Wallace-Courtenay, Inc. Office supplies	6.60	5107—B. H. Minchew, M.D. Payment on expenses as delegate to annual session of A.M.A., June 21-25, 1948, Chicago	200.00
5084—The Western Union Telegraph Company Telegrams	45.00	5108—Edgar D. Shanks, M.D. Payment on expenses of Secretary- Treasurer to annual session of A.M.A., June 21-25, 1948, Chicago	200.00
5085—Ansley Hotel Expenses Public Policy and Legislation	892.25	5109—Southern Bell Tel. & Tel. Company, Inc. Service to May 21, 1948	200.00
5086—Thompson Engraving Company 2000 engraved letterheads, 2000 en- graved envelopes for President Edgar Hill Greene	326.00	5110—Atlanta Linen Company Linen service, May 1948	23.88
5087—Franklin Printing & Mfg. Company Printing and mailing 2500 copies of The Journal April 1948.....	3.97	5111—Franklin Printing & Mfg. Company Printing and mailing 2500 copies of The Journal May 1948	3.10
5088—Franklin Printing & Mfg. Company Printing 1000 programs for the 98th annual session.....\$234.00	101.99	5112—Franklin Printing & Mfg. Company Printing 500 pamphlets of Officers and Committees	38.50
Printing 300 programs for the Woman's Auxiliary 80.50		5113—Wachendorff Brothers, Inc. Flowers	20.00
Printing 50 certificates, scientific exhibits award 11.50		5114—Underwood Corporation Repairs Underwood Typewriters.....	12.55
5089—Arcraft Engraving Company Cuts of illustration for The Journal.....			
5090—Atlanta Biltmore For rooms invited guests, reporter and secretarial help for the 98th annual session			
5091—Art Sign Company Signs for scientific and technical ex-			

5115—Chas. F. Richardson Company Printing 3000 enclosures with Officers and Committees	12.40	5141—Edgar D. Shanks, M.D. Salary for Secretary-Treasurer July 1948, less income tax withheld from July salary	237.30
5116—Artercraft Engraving Company Cuts of illustration for The Journal	20.21	5142—Viola Berry Salary for Executive Secretary July 1948, less income tax withheld from July salary	229.00
5117—Lipscomb-Ellis Company Bond FB98062 for Secretary-Treasurer; Bond FB16169 for Executive Secretary for one year	10.00	5143—Member Pension from Benevolent Fund.....	50.00
5118—Associated Mutuals, Inc. Policy No. GB 135192—Insurance on cameras and projection machines for one year	55.08	5144—Southern Bell Tel. & Tel. Company, Inc. Service to July 21, 1948.....	11.84
5119—Addressograph-Multigraph Corp. Service and supplies for Addressograph machines	13.93	5145—Atlanta Linen Service Linen service for July 1948.....	3.10
5120—Lon F. Livingston, Postmaster Postage	40.00	5146—Western Union Telegraph Company Telegram	1.69
5121—Eddie Thompson Janitor service January through June 30, 1948	30.00	5147—Franklin Printing & Mfg. Company Printing and mailing 2500 copies of The Journal, July 1948.....	1,028.50
5122—Edgar D. Shanks, M.D. Salary for Secretary-Treasurer June 1948, less income tax withheld from June salary	237.30	5148—Artercraft Engraving Company Cuts of illustration for The Journal	52.77
5123—Mrs. G. R. Sims Extra secretarial work April through June 30, 1948	75.00	5149—Addressograph-Multigraph Company Service and supplies for Addressograph machines	14.44
5124—Viola Berry Salary for Executive Secretary June 1948, less income tax withheld from June salary	229.00	5150—Edgar D. Shanks, M.D. Salary for Secretary-Treasurer August 1948, less income tax withheld from August salary	237.30
5125—Member Pension from Benevolent Fund	50.00	5151—Viola Berry Salary for Executive Secretary August 1948, less income tax withheld from August salary	229.00
5126—Collector of Internal Revenue, Atlanta Income tax withheld from salaries April, May and June 1948: Edgar D. Shanks, M.D. \$44.70 Viola Berry 69.30	114.00	5152—Member Pension from Benevolent Fund.....	50.00
5127—Southern Bell Tel. & Tel. Co., Inc. Service to June 21, 1948	8.49	5153—Lon F. Livingston, Postmaster Postage	60.00
5128—Atlanta Linen Service Linen service June 1948	3.10	5154—James Z. Shanks Extra secretarial help June 1 through September 8, 1948	450.00
5129—The Western Union Telegraph Company Telegrams May and June 1948	5.96	5155—Southern Bell Tel. & Tel. Co., Inc. Service to August 21, 1948	13.02
5130—Southern Press Clipping Bureau Clippings furnished during May and June 1948	10.00	5156—Atlanta Linen Service Linen service for August 1948	3.10
5131—Franklin Printing & Mfg. Company Printing and mailing 2500 copies of The Journal June 1948	899.10	5157—Southern Press Clipping Bureau Clippings furnished during July and August 1948	10.00
5132—Artercraft Engraving Company Cuts of illustration for The Journal	44.30	5158—Carithers-Wallace-Courtenay, Inc. Office supplies	17.25
5133—Register of Copyrights Deposit to pay copyright fees of The Journal of the Medical Association of Georgia for one year	24.00	5159—Thompson Engraving Company Engraved letterheads 2000 and 2000 engraved envelopes for Committee on Medical History	48.05
5134—Grover Middlebrooks, Attorney To retainer fee for attorney July 1 through December 31, 1948	500.00	5160—Franklin Printing & Mfg. Company Printing and mailing 2500 copies of The Journal August 1948	901.40
5135—Atlanta Envelope Company Printing 50,800 envelopes for mailing The Journal	389.13	5161—A. B. Dick Company Semi-annual charges mimeograph cleaning and lubrication; 2 lbs. mimeograph ink	17.00
5136—Victor Animatograph Corporation Repairs and parts furnished for Model 40 Victor machine for Fourth District	66.70	5162—Associated Mutuals, Inc. Fire Insurance \$2,000 on furniture and fixtures	6.87
5137—Spalding County Medical Society Crating and express on Victor machine to Davenport, Iowa from Griffin, Ga. and return	13.13	5163—Artercraft Engraving Company Cuts of illustration for The Journal	86.04
5138—Wachendorff Brothers, Inc. Flowers	10.00	5164—Lon F. Livingston, Postmaster Postage	40.00
5139—Miss Winifred McLean For reporting 1948 annual session of the Medical Association of Georgia	350.00	5165—Edgar D. Shanks, M.D. Salary for Secretary-Treasurer September 1948, less income tax withheld from September salary	237.30
5140—Lon F. Livingston, Postmaster Postage	40.00	5166—Viola Berry Salary for Executive Secretary September 1948, less income tax withheld from September salary	229.00
		5167—Member Pension from Benevolent Fund.....	50.00

5168—Mrs. G. R. Sims Extra secretarial work July through September 30, 1948.....		Service and supplies on addressograph machines	13.60
5169—Linder's Gavel engraved for the Medical Society of the State of Pennsylvania	75.00	5197—Sullivan Electric Company Repairs and 8 fluorescent light bulbs..	13.60
5170—Collector of Internal Revenue, Atlanta Income tax withheld from salaries, July, August and September 1948: Edgar D. Shanks \$38.10 Viola Berry 63.00	23.00	5198—Dr. Allen H. Bunce House of Delegates AMA, Interim Session, St. Louis, Nov. 30-Dec. 3, 1948.....	200.00
5171—Atlanta Blue Print & Supply Co. Medical History of Georgia 600 letters lithographed	101.10	5199—Dr. B. H. Minchew House of Delegates AMA, Interim Session, St. Louis, Nov. 30-Dec. 3, 1948.....	200.00
5172—Southern Bell Tel. & Tel. Co., Inc. Service to September 21, 1948.....	14.50	5200—Dr. C. K. Sharp House of Delegates AMA, Interim Session, St. Louis, Nov. 30-Dec. 3, 1948.....	200.00
5173—Atlanta Linen Service Linen service for September 1948.....	10.53	5201—Franklin Printing & Mfg. Company Printing and furnishing 2200 postal cards for Committee on Scientific Work	37.00
5174—The Western Union Telegraph Co. Telegram	3.10	5202—Edgar D. Shanks, M.D. House of Delegates AMA, Interim Session, St. Louis, Nov. 30-Dec. 3, 1948.....	200.00
5175—J. A. Majors Company Two Medical Writing books	1.16	5203—Jack C. Norris, M.D. To expense of Cancer Commission	150.00
5176—Southern Stamp & Stencil Company Two signature stamps and stamp pads	7.20	5204—J. D. Grant Hauling material for Medical Association of Georgia meeting to Atlanta from Milner	57.50
5177—Carithers-Wallace-Courtenay, Inc. Office supplies	33.90	5205—Lon F. Livingston, Postmaster Postage	40.00
5178—J. B. Richards Printing Company Programs—Post-Graduate Courses at Emory	58.50	5206—Edgar D. Shanks, M.D. Salary for Secretary-Treasurer November 1948, less income tax withheld from November salary	237.30
5179—Arcraft Engraving Company Cuts of illustration for The Journal	34.93	5207—Viola Berry Salary for Executive Secretary November 1948, less income tax withheld from November salary	229.00
5180—Franklin Printing & Mfg. Company Printing and mailing 2500 copies of The Journal September 1948	984.10	5208—Member Pension from Benevolent Fund	50.00
5181—American Medical Association One year's subscription to The Journal A.M.A. and Quarterly Cumulative Medicus	27.00	5209—Lon F. Livingston, Postmaster Postage deposit to cover mailings of The Journal	100.00
5182—Viola Berry Commission on local ads October 1947 through September 1948	256.48	5210—Southern Bell Tel. & Tel. Co., Inc. Service to November 21, 1948	11.23
5183—Savannah Letter Shop Mimeographing copies of the Prepayment Medical Care Plans Committee.....	8.50	5211—Atlanta Linen Service Linen service November 1948	3.10
5184—Franklin Printing & Mfg. Company Reprints, 100, for Dr. George R. Herrmann, Galveston, Texas, guest speaker at the Atlanta session. Paper "Coronary Artery Heart Disease"	33.75	5212—The Western Union Telegraph Co. Telegram83
5185—Edgar D. Shanks, M.D. Salary for Secretary-Treasurer October 1948, less income tax withheld from October salary	237.30	5213—Carithers-Wallace-Courtenay, Inc. Office supplies	13.65
5186—Viola Berry Salary for Executive Secretary October 1948, less income tax withheld from October salary	5214—J. B. Richards Printing Company Membership cards 1949—2650	34.00	
5187—Member Pension from Benevolent Fund	5215—Franklin Printing & Mfg. Company Printing and mailing 2500 copies of The Journal November 1948	964.75	
5188—Long F. Livingston, Postmaster Postage	5216—Arcraft Engraving Company Cuts of illustrations for The Journal	60.29	
5189—Ansley Hotel Expenses Public Policy and Legislation	5217—W. B. Saunders Company Medical Dictionary	8.50	
5190—Southern Bell Tel. & Tel. Co., Inc. Service to October 21, 1948	5218—Lon F. Livingston, Postmaster Postage for mailing letters for AMA	66.00	
5191—Atlanta Linen Service Linen service October 1948	5219—Benj. F. Stovall Mimeographing letters for AMA	41.50	
5192—The Western Union Telegraph Co. Telegram	5220—Spencer Incorporated Refund of 2 per cent on \$200 for exhibit space at centennial session of the Medical Association of Georgia		
5193—Carithers-Wallace-Courtenay, Inc. Office supplies	11.29	4.00	
5194—Herff-Jones Company, Inc. Three President's keys	5221—The Liebel-Flarsheim Company Refund on 2 per cent on \$200 for exhibit space at centennial session of the Medical Association of Georgia		
5195—Franklin Printing & Mfg. Company Printing and mailing 2500 copies of The Journal October 1948	1.16	4.00	
5196—Addressograph-Multigraph Corporation	8.95	5222—Mrs. G. R. Sims Extra secretarial help	175.00
	33.87	5223—Zola Thomas Shanks Extra secretarial help	450.00
	942.55	5224—Viola Berry In appreciation—Christmas 1948	250.00
		5225—Eddie Thompson Janitor service to December 31, 1948	35.00

5226—Lon F. Livingston, Postmaster Postage due deposit	20.00	The Journal of the Medical Association of Georgia February 1949 through January 1950	48.00
5227 Edgar D. Shanks, M.D. Salary for Secretary-Treasurer December 1948, less income tax withheld from December salary	5250—Southern Bell Tel. & Tel. Co., Inc. Service to January 21, 1949	13.26	
5228 Viola Berry Salary for Executive Secretary December 1948, less income tax withheld from December salary	237.30	5251—Atlanta Linen Service Linen service January 1949	3.10
5229—Member Pension from Benevolent Fund	229.00	5252—The Citizens & Southern National Bank Annual rent on Safe deposit box No. 2422	3.60
5230—Lon F. Livingston, Postmaster Postage	50.00	5253—Franklin Printing & Mfg. Company Printing and mailing 2550 copies of The Journal January 1949	1,018.53
5231—Collector of Internal Revenue, Atlanta Income tax withheld from salaries October, November and December 1948: Edgar D. Shanks, M.D. \$38.10 Viola Berry 63.00	40.00	5254—Thompson Engraving Company Two Hundred Certificates of Distinction for Georgia physicians who have practiced medicine for 50 years or more	98.55
5232—Dr. Spencer A. Kirkland Expenses Public Policy and Legislation	101.10	5255—Southern Press Clipping Bureau Clippings furnished during January and February	10.00
5233—Southern Bell Tel. & Tel. Co., Inc. Service to December 21, 1948	63.25	5256—Carithers-Wallace-Courtenay, Inc. Office supplies	10.75
5234—Atlanta Linen Service Linen service for December 1948	15.52	5257—Arteract Engraving Company Cuts of illustration for The Journal	62.05
5235—The Western Union Telegraph Co. Telegram	3.10	5258—Remington Rand, Inc. Services rendered on adding machines including new ribbons	8.70
5236—Arteract Engraving Company Cut of illustration for The Journal	1.65	5259—Atlanta Envelope Company Printed No. 10 regular envelopes—10.100	52.92
5237—Southern Press Clipping Bureau Clippings furnished for September, October, November and December 1948	4.58	5260—American Medical Association AMA Assessment Fund: Fulton County Medical Society: Emory G. Lower	25.00
5238—Franklin Printing & Mfg. Company Printing and mailing 2650 copies of The Journal December 1948	20.00	5261—American Medical Association AMA Assessment Fund: Wilcox County Medical Society: W. P. Durham, Abbeville; V. L. Harris and J. D. Owens, Rochelle	75.00
5239—Grover Middlebrooks, Attorney Medical defense—Re: Mrs. G. T. Phillips v. Dr. J. P. Hitchcock for copy of depositions	1,340.08	5262—Lon F. Livingston, Postmaster Postage	50.00
5240—Grover Middlebrooks, Attorney To retainer fee January 1, 1949 to July 1, 1949	15.00	5263—American Medical Association AMA Assessment Fund: Fulton County Medical Society: J. A. Combs	25.00
5241—J. Harry Rogers, M.D. Expenses attending meeting of Council on Industrial Health, AMA, Chicago	500.00	5264—Edgar D. Shanks, M.D. Salary for Secretary-Treasurer February 1949, less income tax withheld from February salary	237.30
5242—American Medical Association AMA Assessment Fund: Elbert County Medical Society: Drs. A. S. Johnson, A. S. Johnson, Jr., J. E. Johnson, Jr., W. A. Johnson, Carey A. Mickel, Jr., John B. O'Neal, III, Phyllis J. O'Neal, F. A. Smith, D. N. Thompson, and G. A. Ward \$250.00 Greene County Medical Society: T. H. McGuire 25.00	5265—Viola Berry Salary for Executive Secretary February 1949, less income tax withheld from February salary	229.00	
5243—Edgar D. Shanks, M.D. Salary for Secretary-Treasurer January 1949, less income tax withheld from January salary	275.00	5266—Zola Thomas Shanks Secretarial help for February 1949, less income tax withheld from February salary	127.60
5244—Zola Thomas Shanks Extra secretarial help January 1949, less income tax withheld from January salary	237.30	5267—Member Pension from Benevolent Fund	50.00
5245—Viola Berry Salary for Executive Secretary January 1949, less income tax withheld from January salary	127.60	5268—Lon F. Livingston, Postmaster Postage for mailing Post-graduate Education programs for University of Georgia School of Medicine	21.20
5246—Member Pension from Benevolent Fund	229.00	5269—Lon F. Livingston, Postmaster Postage	40.00
5247—Lon F. Livingston, Postmaster Postage	50.00	5270—Spencer A. Kirkland, M.D. Expenses of Committee on Public Policy and Legislation	244.60
5248—American Medical Association AMA Assessment Fund: Fulton County Medical Society: Warren B. Matthews, 478 Peachtree St., N. E., Atlanta	40.00	5271—Lon F. Livingston, Postmaster Fee for privilege of mailing third-class matter in bulk for postgraduate education programs of Georgia medical schools	10.00
5249—Register of Copyrights Deposit to pay 12 copyright fees for	25.00	5272—McGowen Printing Company Programs for University of Georgia School of Medicine Postgraduate Medicine Education—3,000 printed	49.00
		5273—Southern Bell Tel. & Tel. Co., Inc. Telephone service to February 21, 1949	10.70

5274—Atlanta Linen Service Linen service February 1949.....	3.10
5275 Western Union Telegraph Company Telegrams	2.73
5276—Franklin Printing & Mfg. Company Printing and mailing 2550 copies of The Journal February 1949.....	1,172.29
5277—Herff-Jones Company, Inc. Gold lapel buttons for Georgia physi- cians who have practiced medicine for 50 years or more	880.00
5278—The National Library Bindery Company Binding 12 volumes of 1948 Journals.....	36.00
5279—St. Louis Sticker Company Seals "100 Years" Medical Association of Georgia—6,750	65.13
5280—The Mimeograph Company Semi-annual charges on cleaning and lubrication of mimeograph machine, March 1 through August 31, 1949.....	12.00
5281—Artcraft Engraving Company Cuts of illustration for The Journal.....	30.22
5282—Dr. W. A. Selman Expense of Committee on Medical Pre- paredness	150.00
5283—Edgar D. Shanks, M.D. Salary for Secretary-Treasurer March 1949, less income tax withheld from March salary	237.30
5284—Viola Berry Salary for Executive Secretary March 1949, less income tax withheld from March salary	229.00
5285—Zola Thomas Shanks Secretarial help for March 1949, less income tax withheld from March salary	127.60
5286—Mrs. G. R. Sims Extra secretarial help January through March 31, 1949..... (outstanding)	75.00
5287—Member Pension from Benevolent Fund..... (outstanding)	50.00
5288—Lon F. Livingston, Postmaster Postage	40.00
5289—Collector of Internal Revenue, Atlanta Income tax withheld from salaries Jan- uary, February and March 1949: Edgar D. Shanks, M.D.....\$38.10 Viola Berry 63.00 Zola Thomas Shanks 67.20 (outstanding) Exchange on non-par checks	168.30 10.75
TOTAL	\$33,874.42

NEW BOOKS

Shearer's Manual of Human Dissection, 2nd Edition, edited by Charles E. Tobin, Ph.D., Associate Professor of Anatomy, University of Rochester School of Medicine and Dentistry. 286 pages, 7 3/4" x 10 3/4", with 79 illustrations.

This manual or dissecting guide is designed to facilitate and enhance instruction in gross anatomic laboratories. It has achieved a workable balance between the amount of procedure for dissection and descriptive text. Designed to be an autonomous unit, this manual does not have to be used in conjunction with, or with reference to, any specific descriptive text of human anatomy.

It gives the dissection procedure for the entire body and yet keeps the dissected parts in as near their normal relationships as possible, so that relationships as well as individual parts can be studied. The instructor can adapt the plan of this manual to any sequence of regional dissection. Text descriptions have been simplified

and illustrations added. New anatomic concepts, developed since the first edition, are included. This excellent book is available at leading book stores or from the publishers, The Blakiston Company, Philadelphia 5, Pennsylvania. Price: \$4.50.

* * *

A Textbook of Neuropathology—With clinical, Anatomical and Technical Supplements: by Ben W. Lichtenstein, B.S., M.S., M.D., Associate Professor of Neurology, the University of Illinois College of Medicine; State Neuropathologist, Illinois Neuropsychiatric Institute. New, 1st Edition. 474 pages with 282 figures.

This brand new book gives you a clear picture of what happens to the nervous system in the presence of disease. Pathologic changes are described so lucidly that you can easily differentiate the various lesions described. To help you even more, the author has included 282 original photographs—illustrating both gross and microscopic anatomy.

The pathology of such degenerative diseases as multiple sclerosis, optical neuritis, pellagra, cerebellar ataxias and polyneuritis is carefully explained. Regeneration is considered in a matter-of-fact way that you'll like. There are thorough discussions of the lesions involved in such inflammatory conditions as meningitis, encephalomyelitis, tuberculosis of the nervous system, rickettsial disorders and rheumatic conditions.

The book will be especially welcomed by the neurologist, psychiatrist, neurosurgeon and pathologist. The general practitioner who has an interest in the subject will find the material modern, authoritative and understandable—particularly in view of the fact that Dr. Lichtenstein covers not only diseases of the nervous system but all diseases in which the nervous system is affected. Published by W. B. Saunders Company, 1949. Philadelphia and London. Price \$9.50.

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New Gould Medical Dictionary, 1st Edition; edited by Harold Wellington Jones, M.D., Colonel U. S. Army, Retired, Contributing Editor Encyclopedia Americana, Former Director, Army Medical Library, Washington, D. C.; Norman L. Hoerr, M.D., Ph.D., Professor of Anatomy, School of Medicine, Western Reserve University; Arthur Osol, Ph.D., Professor of Chemistry, Director of Chemistry Departments, Philadelphia College of Pharmacy and Science, Editor-in-Chief, United States Dispensatory. With the assistance of an editorial board and over 100 contributors. 252 Illustrations, 129 in color: 1294 pages.

Edited by three men with the assistance of an editorial board and over 100 contributors, this is the first new medical dictionary in 38 years.

More than 300 modern texts as well as journals, yearbooks and standard indexes in all basic fields were critically examined for new words and changes of usage; all definitions were written by specialists actively at work in the various fields and each entry was carefully checked and arranged according to modern lexicographic standards demanding brevity, clarity and accuracy. Hundreds of new words are included that can be found in no other medical dictionary; each new word was examined and analyzed by many experts before being accepted.

This is the first medical dictionary to combine a system of modern phonetic respelling with syllabification, to give alternate pronunciations, and to cross-reference from definitions to illustrations. Special tables of arteries, enzymes, vitamins, monstrosities, etc., are grouped in illustrations. Special section for easy reference. Bound into the center of the book is an atlas with 252 illustrations, 129 in color.

All branches of medicine and allied sciences are exhaustively covered—including medical physics and chemistry, dentistry, pharmacy, nursing, veterinary medicine, biology and botany, as well as medicolegal terms. Published by The Blakiston Company, August 1949, Philadelphia 5, Pa. Price \$8.50.

EMORY UNIVERSITY SCHOOL OF MEDICINE

in cooperation with

THE MEDICAL ASSOCIATION OF GEORGIA

announces the second annual

**Postgraduate Course in Medicine and Surgery
for General Practitioners**

October 10 through 14, 1949

THE course is designed to present current ideas concerning the diagnostic and therapeutic problems of general practice. The course can also be used in meeting part of the requirements for membership in the American Academy of General Practice.

Enrollment Limited..... Registration Fee - \$10.00

MONDAY, OCTOBER 10

9:00- 9:30	Announcements	9:00- 9:45	To be announced
9:30-10:30	Bleeding Peptic Ulcer..... <i>Dr. Ira A. Ferguson</i>	9:45-10:30	The Hypertensive Patient..... <i>Dr. Walter H. Cargill</i>
	<i>Dr. Maxwell R. Berry</i>		Intermission
		10:45-11:30	Diabetes..... <i>Dr. L. Harvey Hamff</i>
		11:30-12:15	1. Lower Nephron Syndrome 2. Post-Operative Heart Failure..... <i>Dr. Arthur J. Merrill</i>
10:45-11:30	Bright's Disease and Renal Insufficiency..... <i>Dr. Arthur J. Merrill</i>	12:15- 1:00	Clinicopathological Conference..... <i>Dr. Walter H. Sheldon</i>
11:30-12:15	Burns..... <i>Dr. John D. Martin, Jr.</i>		<i>Dr. David F. Jarvis</i>
12:15- 1:00	Frequent Urological Problems of General Practice..... <i>Dr. Chester A. Fort, Jr.</i>		
2:00- 2:45	The Role of the Adrenal Cortex in Disease..... <i>Dr. Phillip K. Bondy</i>	2:00- 2:45	Early Diagnosis of Carcinoma of the Genitourinary Tract..... <i>Dr. Milus K. Bailey</i>
2:45- 3:30	Therapeutic Possibilities of Cortisone and Compound E..... <i>Dr. Max Michael</i>	2:45- 3:30	Mixed Tumors..... <i>Dr. Calvin B. Stewart</i>
			Intermission

3:45- 4:30 Evaluation of the Patient With
Acute Head Injury Dr. Homer S. Swanson
4:30- 5:15 Dermatology Clinic Dr. Herbert S. Alden

TUESDAY, OCTOBER 11

9:00- 9:45 Acute Sore Throat Dr. William C. Warren
9:45-10:30 Psychosomatic Medicine—Doctor-
Patient Relationship Part I Dr. Carl A. Whitaker
Intermission Dr. John Warkentin
10:45-11:30 X-Ray Conference Dr. H. Stephen Weens
11:30-12:15 Medical Clinic Dr. R. Hugh Wood
12:15- 1:00 Office Proctology Dr. Edgar Boling
2:00- 2:45 Pernicious Anemia Dr. Charles M. Huguley
2:45- 3:30 Injuries of the Hand Dr. Paul L. Rieth
3:45- 4:30 Breech Deliveries Dr. Emmett D. Colvin
4:30- 5:15 Emergencies of the Newborn at
Delivery Dr. John R. McCain

WEDNESDAY, OCTOBER 12

9:00- 9:45 Epilepsy Dr. William A. Smith
9:45-10:30 Psychosomatic Medicine—Doctor-
Patient Relationship Part II Dr. Carl A. Whitaker
Intermission Dr. John Warkentin
10:45-11:30 Chronic Liver Disease Dr. David F. James
11:30-12:15 Antihistaminic Drugs and Drugs
Affecting the Sympathetic Nervous System Dr. Arthur P. Richardson and Staff
12:15- 1:00 Developments in the Treatment of
Infectious Diseases Dr. Paul B. Beeson
2:00- 2:45 Methemoglobinemia in Infancy and
Childhood Dr. Albert Ranber
2:45- 3:30 Allergic States in Infants and
Children Dr. Lee Bivings
Intermission Dr. Lee Bivings
3:45- 4:30 Emergencies in the Newborn Dr. M. Hines Roberts
4:30- 5:15 Fluids and Electrolytes in
Pediatrics Dr. Richard W. Blumberg

3:45- 4:30 Carcinoma of the Face and
Mouth Dr. Robert L. Brown
4:30- 5:15 Tumors of the Neck Dr. J. Elliott Scarborough

FRIDAY, OCTOBER 14

9:00- 9:45 Cardiac Arrhythmias Dr. Robert P. Grant
9:45-10:30 Myocardial Infarction Dr. R. Bruce Logue
Intermission Dr. James V. Warren
10:45-11:30 Heart Failure Dr. James V. Warren
11:30-12:15 Cerebral Hemorrhage and
Thrombosis Dr. J. Frank Harris
12:15- 1:00 Cerebral Angiography Dr. Edgar F. Fincher
2:00- 2:45 Recognition and Treatment of
Shock Dr. W. Cleveland Ward
2:45- 3:30 Endometriosis Dr. Walter R. Holmes
3:45- 4:30 Benign Lesions of the Cervix Dr. John B. Gross

Detach slip below to make application for enrollment.

To: Director of Postgraduate Education
Emory University School of Medicine
36 Butler Street, S. E.
Atlanta 3, Georgia

Please enroll me in the Postgraduate Course for General Practitioners, October 10-14, 1949.

NAME _____
ADDRESS _____

NO MAGIC NEEDED

Medical Public Relations cannot be a magical combination of printer's ink, radio and television. It is—it must be—public service. American Medicine needs no sleight-of-hand sideshow. But it does need a proper presentation to a currently critical public.

That belief was confirmed strongly during a recently completed trip planned for me by your Public Relations Committee. I observed the operation of Public Relations programs in Illinois, Michigan, Tennessee and Alabama. The first two are big time operations, lavishly financed. The latter two programs are more modest but just as effective.

The Illinois State Medical Society, moving to meet the doctor shortage, matched \$50,000 put up by the Illinois Agricultural Association to make loans to medical students who agree to practice in towns of less than 5,000. Twenty counties with acute situations were selected for first treatment and three students are in college under the newly-projected program.

Illinois doctors and members of their Woman's Auxiliary are busy now in the summer roundup of school children for pre-term free examinations. Young physicians ready to begin practice were invited to a meeting where small town veterans told them how to set up an office and begin work in such areas. The advantages of small town life were pointed up. Thirty veteran physicians ready to retire interviewed young men attending the meeting as replacement prospects.

There is your example of public service in Illinois. The Public Relations Department sparked these programs and it has seen that the people of the state know about them and take advantage of them.

I found all the executives, and their staff workers, at the American Medical Association eager to serve state and county associations and societies. They wondered if the states knew all of the services A. M. A. makes available, and doubted that very many use these services to full advantage. So I made a detailed study of what each bureau, section or council has to offer us in Georgia. This will be discussed with you in person, at meetings and in later reports in *The Journal*.

Dr. George F. Lull and Dr. Morris Fishbein emphasized that the A. M. A. has a tough fight on its hands in Washington. They asked that I bring back to Georgia the warning that the national administration would stop at nothing in its drive to socialize the medical profession for political profit. So, all that we can do in Georgia to present a solid national front will rebound to bolster our system of free enterprise.

It is a pleasure to report that Dr. Lull gave credit to Southern Associations, and to Southern Senators, for most of the victory in the recent Senate triumph over socialism. There is at least one spot in Chicago where the South is appreciated—the A. M. A.'s newly-expanded nine-

story building.

Clem Whitaker of Whitaker and Baxter, director of the national education campaign, urged that we get all the endorsements possible for the drive. He agreed with me that what is needed is more endorsements from not-so-obvious organizations, such as individual labor unions. He and Miss Baxter (Mrs. Whitaker) are now on a round of press conferences to sharpen public opposition to the administration's plan. The only Southern conference will be in New Orleans.

Whitaker agreed to bear additional expense of extra special mailings of campaign literature direct to sources we might designate if such instances arise. He plans a Chicago meeting, probably in January, for State Public Relations Directors, to kick off his 1950 campaign coincident with convening of Congress.

Larry Rember has expanded his Public Relations Department at A. M. A. to reach further into the "Grass Roots" with scientific, service and economic information.

In Lansing, Hugh Brenneman and a staff of seven workers have done a most impressive job of public service, therefore an excellent job of public relations. He has organized and motivated a C. A. P., for *Cooperate With the American People*. It is a system by which he can telegraph key persons in every county and within 48 hours have about 5,000 letters in Washington or wherever they are needed.

Despite the fact that Michigan has a CIO-backed governor, the legislature recently adopted a strong resolution condemning Socialized Medicine and enacted several bills to promote better health through private care. The assistant director of the Michigan Public Health Department told me the Michigan state and county medical groups had been a tremendous help in the state program for health improvement.

The Auxiliary is particularly active and useful in Michigan. One of Brenneman's assistants, a woman, is a field secretary in public relations working directly with county auxiliaries. Michigan has done an excellent job in doctor and hospital distribution. Again—public service through public relations.

In Tennessee V. O. Foster is beginning to realize some of the fuller fruits of his committee's public relations program. The Nashville Medical Academy is sponsoring and organizing the nucleus of a projected statewide speaker's bureau. Foster, a former school teacher himself, has done a very effective job for public health and private care by working through the schools. He arranged broadcast health courses for elementary grades by using the A. M. A. loan recordings through local radio stations.

In Alabama, PR Director W. A. (Bill) Dozier, Jr., is rounding out his first year. So is the Alabama program, which has heavily emphasized direct services to all the people. Dozier, like Foster, issues a weekly health column to

newspapers and frequent PR reports to the Medical Association of the State of Alabama. The health columns are widely used in both states. The Alabama public relations committee sponsored a statewide health workshop conference last February. It sharpened public health consciousness and the participants are actively following through certain recommendations. Dr. Douglas Cannon, secretary-treasurer of the M. A. S. A., said association members were giving enthusiastic support to their PR program.

A detailed plan for Public Relations in Georgia, envisioning both immediate and long range objectives, will soon be in your hands. However, some observations will be made here briefly.

Based on the backlog of experience, it can be said that good public relations for the medical profession falls into two percentages. Eighty per cent depends upon the public relations of the doctor and patient. Twenty per cent hinges upon the presentation of the profession to the public.

The two, however, are inseparable. They are interdependent.

Today, even before birth and all through his life, the average individual has the most personal relations with doctors, nurses and hospitals. So has his wife. So have his children.

Listen to any group and the conversation will eventually get around to YOU. All facets of medical care and the costs thereof, though many of them are beyond your control, are in most patients' minds, YOU.

Likewise, YOU—the medical profession—are always in the spotlight in your social, civic, and political activities in the community.

It is a responsibility you accept, almost automatically, upon the very first day you open your office. And every day thereafter. It is yours in exchange for the position of honor, dignity and respect accorded you by your fellow men.

YOU are the power and the strength and the intelligence of the entire medical profession. YOU stand athwart the threat of regimentation.

**ED L. BRIDGES, Director,
Public Relations,
Medical Association of Georgia.**

NEWS ITEMS

Dr. Bertram P. Avera, Jr., of Wrens and Augusta, recently took over the practice of Dr. Arthur M. Knight, Jr., of Waycross, during which time Dr. Knight was doing post-graduate study in x-ray diagnosis at the University of Chicago, The School of Medicine, Chicago, Ill. Dr. Avera is a well trained internist, having completed the requirements for certification by the American Board of Internal Medicine. He was an honor graduate of the University of Georgia School of Medicine, Augusta, in 1942, and is a member of A. O. A. honorary medical fraternity. He served in the U. S. Army during World War II. He has served several years on the resident staff in internal medicine under Dr. V. P. Sydenstricker at the University Hospital, Augusta.

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Dr. Robert L. Bennett, Warm Springs, assistant medical director of the Warm Springs Foundation for Infan-

tile Paralysis, recently addressed members of the medical and nursing staffs of Phenix City Memorial Hospital, Phenix City, Ala. Dr. Bennett emphasized the acute stages of poliomyelitis in his talk, and listed indications which call for the use of the iron lung in the treatment of the disease. He says surveys have shown that for every Negro crippled by polio, 15 white persons fall victim to it, proving the disease is more prominent in the white race than in the colored.

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The Bibb County Medical Society held its meeting at 201 Hemlock Street, Macon, August 2. Program: "Acute Pancreatitis". Dr. Henry Tift. Dr. A. M. Phillips, secretary.

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Dr. Albert M. Boozer, native of Newberry, S. C., announces the opening of his office at 109 West Wangh Street, Dalton, for the practice of medicine. Dr. Boozer graduated from University of Tennessee College of Medicine, Memphis, Tenn., and served his internship in the Denver General Hospital, Denver, Colo. He later was on active duty with the U. S. Army for two years during World War II, his last station being Fort McPherson, where he was acting chief of obstetrics and gynecology services. He was assistant resident in surgery at City Memorial Hospital, Winston-Salem, N. C., before going to Dalton.

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Dr. Willard P. Carson, a native of Whitfield County, announces the opening of his office at Chatsworth. Dr. Carson graduated from the University of Georgia School of Medicine, Augusta, in 1947. He is a member of Alpha Omega Alpha honorary medical fraternity. From March to July 1947 he was associated with Dr. Lloyd Wood of Dalton. For the past two years he has been at Grady Memorial Hospital, Atlanta, where he served a surgical internship and residency.

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Dr. Rives Chalmers, Atlanta, announces the removal of his office to 227 Doctors Building, 490 Peachtree Street, N. E., Atlanta. Practice limited to psychiatry.

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Dr. Charles F. Cooper, Jr., Perry, has discontinued his medical practice at Macon to study the diseases of the eye at Grady Memorial Hospital, Atlanta, for the next three years. He will serve as resident physician at Grady Memorial Hospital. Dr. Cooper graduated from Emory University School of Medicine, Atlanta, and served in the U. S. Army for five years.

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Dr. and Mrs. J. A. Corry, Barnesville, celebrated their Golden Wedding Anniversary at their home on Holmes Street, Barnesville, August 14. The beloved couple held open house and all their friends were invited to call. Congratulations Dr. and Mrs. Corry!

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Dr. J. M. Crawford, formerly of Cave Springs, and a native of Lincolnton, announces the opening of his office in the Avondale Drug Store Building, Avondale Estates, for the practice of medicine. Dr. Crawford graduated from the University of Georgia School of Medicine, Augusta. He served his internship in New Orleans and completed one year's post-graduate work at Vanderbilt University School of Medicine, Nashville, Tenn.

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Dr. J. Harry Duncan, Savannah, announces the opening of his office at 116 East Jones Street, Savannah, for the practice of ophthalmology. He graduated from Emory University School of Medicine, Atlanta, in 1941, and served his internship at Grady Memorial Hospital, Atlanta, and then served as a resident and instructor in pathology at Vanderbilt University Hospital, Nashville, Tenn. Dr. Duncan was in the U. S. Navy for three years where he was on duty in the South Pacific on a carrier and in the Aleutians with a Fleet Air Wing. Upon his release in 1946, he began

his ophthalmology training at Cornell University Medical College, New York City. He served as chief resident on the eye service of New York Hospital and as instructor in ophthalmology in Cornell University Medical College while completing his post-graduate work on eye service.

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Dr. David B. Fillingim, a native of Cuthbert, now a Savannah physician, has been elected president of the medical staff of the Warren A. Candler Hospital, Savannah. Dr. Fillingim graduated from the University of Georgia School of Medicine, Atlanta, in 1934. He served his internship at Emory University Hospital, Atlanta. He was resident physician at Warren A. Candler Hospital, Savannah, from 1936 to 1938, entering private practice in Savannah in 1938. For three years he served in the Air Force during World War II, most of this service was in the European theatre.

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The Fulton County Medical Society held its semi-monthly dinner meeting at the Academy of Medicine, Atlanta, August 4. Scientific program: Dr. Warren B. Matthews moderator, "Prothrombin Determinations", Dr. Evangeline Papegeorge; "Technic of Preparing Blood for Transfusions", Dr. Caroline K. Pratt; "Bacterial Sensitivity to Antibiotics", Dr. William F. Friedewald; Dr. David F. James led the discussion.

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Dr. J. G. Gainey, former county health department official of Columbus, was recently appointed full-time physician for the Columbus Veterans Administration office to fill the vacancy created when Dr. Cyril Floyd resigned last March to re-enter the Army. Dr. J. A. McAllister, Atlanta, of the regional office, Dr. Walter C. Earle, Atlanta, of the district office, and the Muscogee County Medical Society through Dr. Roy S. Gibson, Columbus, president, were instrumental in obtaining Dr. Gainey. He is an old hand at veterans' work, and was graduated from Emory University School of Medicine, Atlanta, in 1924, and went immediately to the Atlanta VA office. Later he moved to a position with the VA in Columbia, S. C., where he was chief medical examiner of the claims and ratings board. He practiced medicine in Florida for a number of years, coming to Columbus in 1941 to take a position with the health department.

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The Georgia Baptist Hospital medical staff held its regular dinner meeting in the Nurses' Home dining room, Atlanta, August 16. Dr. Lester Brown announced that case presentation of "Recurrent Pulmonary Disease of Strange Causitive Agent" by Dr. Laura Lipscomb was the subject discussed. Dr. J. C. Blalock, secretary.

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Griffin and Spalding County recently made application for funds from the federal and state governments to construct a \$121,500 Griffin and Spalding County Health Center. Application was filed by Dr. T. O. Vinson, Griffin, local health officer. The petition signed by two commissioners from the county board and two from the city board stated that local funds would be supplied when needed. The health center will be constructed under the Hill-Burton Act. The building of a structure to house the local health department has been recommended by the past several grand juries of Spalding County Superior Court. The Health Department is now housed in the basement of the courthouse.

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Dr. John Willis Hurst, formerly of Carrollton, announces his association with Dr. Hal M. Davison, Doctors Building, 478 Peachtree Street, N. E., Atlanta. Internal medicine and cardiology. Dr. Hurst graduated from the University of Georgia School of Medicine, Augusta, where he was president of the A.O.A., an honorary medical fraternity. Also he was an intern and assistant in medical school. For two years Dr. Hurst served in the U. S. Army Medical Corps in

Denver, Colo., attaining the rank of captain. He spent one and one-half years in the Massachusetts General Hospital, Boston, where he had a clinical cardiac fellowship studying heart diseases under Dr. Paul D. White. For two years he was a teaching fellow at Harvard Medical School, Boston.

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The Jackson-Barrow Medical Society held its monthly dinner meeting at the Harrison Hotel, Jefferson, June 27. Scientific program: "The Pathology of the Heart", Dr. D. Frank Mullins, Jr., Athens. Others attending the meeting were Drs. Jas. A. Green, Jr., Goodloe Y. Erwin, of Athens; O. C. Pittman, A. A. Rogers, Sr., A. A. Rogers, Jr., of Commerce; Alex Russell, W. Q. Randolph, of Winder; J. T. Stovall, L. R. Bryson and C. B. Lord of Jefferson.

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Dr. Ben T. Beasley, Atlanta, wrote a paper entitled "Carcinoma of the Uterus" which was published in the West Virginia Medical Journal 45:88-90 (April) 1949.

1. According to available information, cancer is on the increase.

2. Present methods of diagnosis and treatment lengthen the span of life of cancer sufferers, and 3 to 5 years cures of cancer of the uterus are obtained in 15 to 65 per cent of the operative cases whether treated by radiation or surgery or a combination of both.

3. The smear method of detecting cancer cells in body secretions devised by Papanicolaou is approximately 90 per cent accurate.

4. Large numbers of trained technicians must be secured and some method of financing projects must be found if this method is to be utilized to its greatest advantage in detecting cancer cells before the usual signs of cancer develop and tissue invasion is begun.

5. The cancer research programs should be supported by the medical profession.

6. Augmented efforts in early diagnosis of cancer should be made by every practicing physician.

7. More time on our larger surgical and medical programs should be devoted to cancer research discussion.

8. The scientific control and cure of cancer will be possible only after its cause is discovered."

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Dr. John S. Atwater, Atlanta, was recently elected a member of the American Therapeutic Society and the American College of Allergy.

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The Fulton County Medical Society held its dinner meeting at the Academy of Medicine, Atlanta, August 18. Program: Dr. Warren B. Matthews moderator; "Anatomical Effects of Irradiation". Dr. Everett L. Bishop; "Clinical Effect of Irradiation", Dr. Robert Brown.

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Dr. E. H. Kalmon, Albany, radiologist, and Dr. Hansel Derrick, Albany, pathologist, both of Phoebe Putney Hospital staff in Albany, recently described their professions to the Albany Rotary Club meeting. Dr. Kalmon, speaking on the history of radiology, discussed the sources of the two types of radioactive energy, x-ray and radium. Dr. Derrick traced the history of the science of pathology, defined it as being investigation into the cause of disease, and discussed the work being done by pathologists in the field of cancer research.

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Dr. W. C. Kitchens, a native of Augusta, announces the opening of his office at 428 North Milledge Avenue, Athens. Practice limited to internal medicine. He graduated from the University of Georgia School of Medicine, Augusta, in 1943. Upon completing his internship at Macon Hospital, Macon, he spent two years in the U. S. Army Medical Corps, eighteen months of which were spent in Italy and Germany. Dr. Kitchens was resident physician at University Hospital, Augusta, until recently.

Col. Charles L. Leedham, M. C., Augusta, chief of medical services at Oliver General Hospital and professor of clinical medicine at the University of Georgia School of Medicine, has been signally honored with an associate membership in the American Therapeutic Society. The American Therapeutic Society is one of the oldest specialized medical societies, having been organized in 1900. Included with the notification to Colonel Leedham of the honor bestowed upon him was an invitation to present a paper to the society.

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The Lowance Clinic, suite 215 Doctors Building, 478 Peachtree Street, N. E., Atlanta, announces the association of Dr. Haywood N. Hill, formerly of the Henry Ford Hospital and Clinic, Detroit, Mich.

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Dr. Kathryn S. Lunceford, Metter, announces her association with her father, Dr. W. E. Simmons, Metter, in the practice of medicine and surgery. Dr. Lunceford graduated from Emory University School of Medicine, Atlanta, in 1948, and served her internship at the U. S. Marine Hospital, New Orleans, La. For the first time in the history of Metter and Candler County the citizens will have a woman physician and surgeon, catering mostly to women and children.

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Dr. Guy G. Lunsford, Atlanta, State director of county health work under the direction of the Georgia Department of Public Health, recently visited Butler in consultation with a joint session of the county commissioners and Taylor County board of health perfecting plans for the establishment of a county health center at Butler.

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Dr. Farris McElreath, Jr., Wadley, announces the opening of his office at Tennille for the practice of medicine. His office will be located in the Chandler McMaster Building on South Central Avenue. Dr. McElreath graduated from the University of Georgia School of Medicine, Augusta, in 1946. He interned at University Hospital, Augusta, and served two years in the Medical Corps of the U. S. Army, eight months of which he spent on active duty in Japan.

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The National Institute of Mental Health has chosen three Georgia institutions of higher education to receive grants for training personnel in psychiatry, neurology, clinical psychology and psychiatric work. The three schools and the amounts they will receive were announced in Washington as follows: Atlanta University, \$5,000; Emory University, \$5,400, and University of Georgia School of Medicine, Augusta, \$5,000. The grants will include funds for expanding faculty and teaching facilities and stipends for graduate students recommended by the schools.

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Dr. H. E. Nieburgs, Augusta, assistant research professor of oncology at the University of Georgia School of Medicine, told the Augnsta Exchange Club members that cancer is not inherited but susceptibility is. He stated that cancer may be caused by a variety of factors. Among these he listed irritation from certain chemicals taking place inside and outside of the body, a virus and difficulties in the endocrine system. The never-ending search for improved diagnosis and therapy, especially preventive therapy, depends on the search for causes of cancer, he said. Great progress has been made in diagnosis, and when detected in the early stages cancer may be removed and a complete cure effected. Some races are more susceptible to cancer than others, the professor disclosed. Women of Japan and China rarely have cancer of the breast; Jewish women seldom have cancer of the womb; Italian people rarely have cancer of the prostate. The latter is common, however, in England and the United States.

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Illustrated by slides and motion pictures on "Cancer of the Stomach" before the summer meeting of the Tenth District Medical Society held at Monroe.

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Dr. Harry B. Nunnally, Monroe, announces the opening of his office in Monroe for the practice of medicine and surgery. Dr. Nunnally graduated from Emory University School of Medicine, Atlanta, in 1941. He served as resident surgeon at the Knickerbocker Hospital, New York City.

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Oliver General Hospital, Augusta, is conducting a six weeks course of instruction for 74 ROTC medical and dental students from six different medical schools and colleges. They will be trained in all phases of hospital work. The medical students are under the medical department's plan to train medical and dental students for reserve commissions in the Medical and Dental Corps, United States Army, and to help qualify them for regular Army commissions upon graduation and completion of their internship. The students attend lectures by consultants and chiefs of services, make regular ward rounds with medical officers, and observe actual treatment of patients.

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Dr. W. W. Otto, Savannah, assistant medical director of the Chatham-Savannah Health Department, discussed "The Treatment of Tuberculosis" at a meeting of the Pennsylvania Avenue Health Council at Deptford Community House, Savannah.

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Dr. A. M. Phillips, Macon, president-elect of the Medical Association of Georgia, recently discussed "Socialized Medicine and a Few of the Problems Confronting the Medical Profession" at a luncheon of the Professional Service Representatives Association held at Town House, Atlanta. Association leaders are Ed E. Rader, of M & R Dietetic Laboratories, president; Al Laseter, of Billhuber-Knoll Corp., vice-president, and Harold C. Palmer, of U. S. Vitamin Corporation, secretary-treasurer.

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The Piedmont Proctologic Society, a sub-section of the American Proctologic Society, was organized at the Battery Park Hotel, Asheville, N. C., July 30. All proctologists who are members of the American Proctologic Society in the states of Virginia, North Carolina, South Carolina, Tennessee and Georgia are eligible for membership and all of the above named states were represented at the organization meeting. Dr. Isaac E. Harris, Durham, N. C., was chairman of the organization committee; Dr. C. S. Drummond, Winston-Salem, N. C., secretary; Dr. George F. Parker, Asheville, the host; Dr. W. T. Brockman, Greenville, S. C., to select the name; Dr. C. R. Deeds, Hendersonville, N. C., to draw up the Constitution and By-Laws. The first officers elected are Dr. W. T. Brockman, Greenville, S. C., president; Dr. C. R. Deeds, Hendersonville, N. C., vice-president, and Dr. C. S. Drummond, Winston-Salem, N. C., secretary-treasurer. Others attending the organization meeting were Drs. G. G. Perry, High Point, N. C., C. C. Massey, Charlotte, N. C., R. B. Jackson, Raleigh, N. C., W. H. Poston, South Carolina, Milton Stockman, Knoxville, Tenn., Orville Gass, Chattanooga, Tenn., Edgar Boling, Atlanta, Ga., and Robert Terrell, Richmond, Va. The next meeting will be held in Atlanta, December 5, 1949.

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Dr. Albert Rauber, Atlanta, announces the opening of his office at suite 336 Doctors Building, 490 Peachtree Street, N. E., Atlanta. Practice limited to pediatrics.

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Dr. D. S. Reese, Carrollton, chairman of the Carroll County Board of Health, was elected chief of staff for the new Tanner Memorial Hospital, Carrollton, when the physicians held their organization meeting at Sunset

Hills Country Club, Carrollton, July 7. Dr. Reese is the holder of 17 certificates for post-graduate work in various hospitals and clinics throughout the United States. Dr. O. W. Roberts was elected vice-chief and Dr. Steve Worthy was elected secretary-treasurer. An election of the executive committee were Dr. W. E. Thomasson, medicine; Dr. O. W. Roberts, surgery; Dr. O. E. Brannon, dental surgery; Dr. R. L. Denney, Eye, Ear, Nose and Throat; Dr. Steve Worthy, obstetrics and gynecology. Committees selected to handle the various functions of the hospital were: Credentials, Dr. L. J. Brock, Dr. W. A. Adderhold, and Dr. S. F. Scales. Medical records and program committee, Dr. R. L. Denney, Dr. H. L. Barker, and Dr. O. W. Roberts. Surgical procedure and operating room, Dr. E. C. Bass, Jr., Dr. E. V. Patrick, and Dr. Selby Cramer. Attendance committee, Dr. W. E. Thomasson, Dr. L. Holtz, and Dr. O. E. Brannon. Chairman of medical advisory of colored ward, Dr. S. D. Thomas.

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The Richmond County Health Department, Augusta, ranks with the best in the United States, Dr. Robert E. Rothermel, New York City, assistant field director of the American Public Health Association said. This high rating does not mean that the local health department is perfect or that it has the best of equipment, said Dr. Rothermel, who recently conferred with Dr. Abe J. Davis, Augusta, commissioner of health, in regard to standards of evaluation used by the national health association. The rating means that the Richmond County record in combating tuberculosis, malaria, infant mortality and other problems is as good as any in the country, he said. Dr. William P. Richardson, director for field training, and Dr. E. G. McGavran, dean of the school of public health at the University of North Carolina, have been in Augusta to make an exhaustive survey of the Richmond County health department which will be recommended as a field training center for resident doctors in public health service under a plan worked out by the University of North Carolina. Dr. Guy G. Lunsford, Atlanta, Georgia Department of Public Health, was also in Augusta to discuss results of the survey.

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Dr. Guy V. Rice, Atlanta, Georgia Department of Public Health staff, has been appointed consultant to the Federal Administration's Committee on School Health. This committee is composed of representatives of the Office of Education, Children's Bureau, and Public Health Service. Dr. Rice will render technical assistance in formulating desirable practices in the field of health activities for school children.

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Dr. C. P. Savage, Montezuma, and Dr. R. A. Collins, Jr., a native of Unadilla, announce their association at the Riverside Sanatorium, Montezuma, in the practice of medicine and surgery. Dr. Collins graduated from the University of Georgia School of Medicine, Augusta, in 1948, and had his hospital training at Oliver General Hospital, Augusta.

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Dr. T. F. Sellers, Atlanta, Georgia Department of Public Health director, has been made vice-chairman of the Committee on Maternal and Child Health of the State and Territorial Health Officers' Association.

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Dr. Bruce Schaefer, Toccoa surgeon, recently spent six weeks touring Europe. He also attended the annual convention of the International College of Surgeons in Vienna, Austria.

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Dr. C. K. Sharp, Arlington physician, recently was guest speaker at the Blakely Rotary Club. Dr. J. G. Standifer, Blakely physician, also a guest of the club, introduced Dr. Sharp, who gave an interesting talk on "For Fifty Years a Country Doctor." Dr. Sharp has practiced medicine for over a half century. He related

many interesting experiences incurred during his long career and discussed the innovations in recent years of treating illnesses which were unknown in his early practice and of the progress made toward combating certain diseases through medical research.

* * *

Dr. W. P. Smith, Bowdon physician, celebrated his 83rd birthday July 9. He has been a practicing physician for more than a half century, first beginning his practice in Troup County. Congratulations Dr. Smith!

* * *

Dr. Frank H. Stelling, a native Augustan, announces the opening of his office at 1020 Greene Street, Augusta, for the practice of orthopedic surgery. Dr. Stelling graduated from the University of Georgia School of Medicine, Augusta, in 1938, and successively served in a rotating internship in the University Hospital, Augusta, as resident in pathology and x-ray, and as assistant resident surgeon. From 1941 to 1946 Dr. Stelling was in the U. S. Army Medical Corps, the last three years of which he served as assistant orthopedic surgeon of Schick General Hospital, Clinton, Iowa. Following his discharge he was for more than a year senior resident in orthopedic surgery at Gallinger Municipal Hospital, Washington, D. C. Dr. Stelling was senior resident in orthopedic surgery at Peter Bent Brigham Hospital and Children's Hospital, both of Boston. From January to July of 1949 he has been private assistant to Dr. William T. Green in Boston, and was on the teaching staff of Harvard Medical School as assistant in surgery.

* * *

Dr. John D. Stillwell, Thomasville, director of health for Thomas, Brooks and Colquitt Counties, was recently guest speaker at the meeting of the Meigs Kiwanis Club, Meigs. Dr. Stillwell spoke on "Health Services."

* * *

The Tenth District Medical Society held its summer meeting at hospital grounds of Walton County Hospital, Monroe, August 18. The Walton County Medical Society entertained the members and guests at a barbecue. Dr. Phil Stewart, Monroe, president presided at the meeting. Dr. Enoch Callaway, LaGrange, president of the Medical Association of Georgia, discussed the public relations program of the Medical Association of Georgia. Scientific program: "Nurse, Midwife Service in Walton County, Georgia", Dr. Ernest Thompson, Monroe; "Cancer of the Large Bowel", Dr. John L. Barner, Athens; "Cancer of the Stomach", Dr. A. H. Letton, Atlanta. Officers are Dr. M. C. Adair, Washington, president; Dr. D. Frank Mullins, Athens, vice-president; and Dr. A. W. Simpson, Jr., Washington, secretary-treasurer. The winter meeting was scheduled for February 16, 1950 at Athens.

* * *

Dr. J. A. Thrash, Columbus and Muscogee County health officer, has been selected by the United Nations World Health Organization as one of two American physicians to make a study of public health administration abroad. Plans are for Dr. Thrash to spend three months in studying health activities in Denmark, Sweden, France, and Great Britain. Dr. George W. Comstock, Columbus, will serve as acting head of the City-County Health Department while Dr. Thrash is on the above-named tour.

* * *

The United States Marine Hospital, Savannah, announces a number of staff changes. Announcement was made by Dr. Lee C. Watkins, senior surgeon. The new physicians include: Dr. William W. Quisenberry, St. Petersburg, Fla.; Dr. John S. Benson, St. Louis, Mo.; Dr. William R. King, Lewisburg, Pa.; Dr. James A. Finger, North Carolina; Dr. William A. Lampley, St. Louis, Mo.; Dr. Paul R. Davidson, Pennsylvania. The change represents a complete turnover in the staff of doctors with the exception of Dr. Watkins and Dr. Hubert Martin, head of the dentistry section. Doctors

ordered from the Savannah Marine Hospital to other stations include: Dr. Donald Alderman, New Haven, Conn.; Dr. Samuel H. Huff, Roanoke, Va.; Dr. Edward A. Rogers, Fort Stanton, N. Mex.; Dr. Robert A. Sammons, Augusta, and Dr. Lewis W. Moore, Atlanta.

* * *

The Veterans Administration Hospital, Dublin, has two new physicians according to Dr. David Quinn, Dublin, manager. They are Dr. Francis Bloise, chief of surgery, from Hot Springs, Ark., and Dr. Loren Dunton, surgeon, from Coral Gables, Fla.

* * *

Dr. T. O. Vinson, Griffin, health commissioner, discussed the work of the Griffin and Spalding County health department at the recent meeting of the Griffin Rotary Club. He pointed out that the health department's work includes health education, sanitation, control of communicable diseases, preventing physical defects and disease whenever possible to discover with x-ray and blood tests and a far-reaching school health program. He praised Dr. W. H. Wilson as the man who some 20 years ago began the dental clinics. Children who are unable to pay a private dentist are treated in the clinic which is sponsored by the Griffin Rotary Club.

* * *

The Savannah Society of Obstetricians and Pediatricians was organized at the Hotel DeSoto, Savannah, July 15, with every Savannah obstetrician and pediatrician present. Dr. A. J. Waring, dean of pediatricians in Savannah, was elected president; Dr. H. F. Sharpley, Jr., president-elect, and Dr. W. W. Osborne, secretary-treasurer. Believed to be one of the first, if not the first society of its kind to be organized in the nation, the purpose of the organization is quoted in the Constitution adopted as follows: "1. To promote good will and cooperation between obstetricians and pediatricians of Savannah and Chatham County. 2. To discuss freely problems of mutual interest to both specialties. Where ideas and medical procedure overlap, every effort will be made to perfect a smooth coordination. 3. The health of mothers and children in this community should be placed on a high level. We will, therefore, stimulate interest and knowledge among the laity as well as among the members of the medical profession in regard to the physical and mental welfare of women and children." "Infant Nursing and Breast Care" was discussed by the following members present: Drs. E. C. Demmond, Henry C. Frech, E. N. Gleaton, Emerson Ham, Albert J. Kelley, Ruskin King, Thomas F. Lawless, Milton Maze, Howard J. Morrison, W. W. Osborne, Harry F. Portman, H. F. Sharpley, Jr., A. J. Waring, Jr., Myer Schneider, and Richard Schley. The society will meet quarterly, the next meeting to be held at the country home of Dr. E. N. Gleaton.

* * *

Dr. Barton A. McCrum, Gainesville, announces the opening of his office at 420 East Broad Street, Gainesville. Practice limited to obstetrics and gynecology.

* * *

Dr. Sanford E. Ayers, formerly of Toceoa and Kwellin, China, announces the opening of his offices, Adams Building, 275 East Paces Ferry Road, N. E., Atlanta, for the practice of medicine and surgery.

* * *

The Board of Medical Examiners for Georgia will meet October 10-12, in Atlanta. Communications dealing with medical licensure should be sent Mr. R. C. Coleman, joint secretary for examining boards, The Capitol, Atlanta.

THE E. C. DAVIS MEMORIAL OBSTETRICAL LECTURESHIP

The Academy of Medicine, Atlanta,
Friday evening, Oct. 7, 1949, 8:15 P.M.

The committee of the Dr. E. C. Davis Memorial Obstetrical Lectureship takes great pleasure in an-

nouncing that Nicholson J. Eastman, M.D., Obstetrician-in-Chief of the Johns Hopkins Hospital, will give the first lecture at the Fulton County Medical Society Academy of Medicine Friday evening, October 7, at 8:15 P.M.

The subject, "The Physiology and Pathology of Uterine Contractions", is one in which Dr. Eastman and his associates at Johns Hopkins Hospital have been doing a great deal of research for the past few years. This is a most interesting phase of obstetrics and one that will be of interest to obstetricians and all physicians who do obstetrics.

UROLOGY AWARD

The American Urological Association offers an annual award of \$1,000 (first prize of \$500, second prize \$300 and third prize of \$200) for essays on the result of some clinical or laboratory research in urology. Competition shall be limited to urologists who have been in such specific practice for not more than five years and to residents in urology in recognized hospitals.

The first prize essay will appear on the program of the forthcoming meeting of the American Urological Association, to be held at the Hotel Statler, Washington, D. C., May 29-June 1, 1950.

For full particulars write the secretary, Dr. Charles H. de T. Shivers, Boardwalk National Arcade Building, Atlantic City, N. J. Essays must be in his hands before February 20, 1950.

OBITUARY

Dr. Samuel Green, aged 60, Atlanta obstetrician, died of a heart attack at his home, 697 East Morningside Drive, N. E., Atlanta, August 18, 1949. Dr. Green was born in the Kirkwood section of Atlanta, the son of the late Dr. and Mrs. A. F. Green, pioneer residents. He graduated from the Eclectic Medical College, Cincinnati, O., in 1913, and had practiced medicine in Atlanta for over 35 years. He was a member of the Fulton County Medical Society, the Medical Association of Georgia and a fellow of the American Medical Association. He is survived by his wife, the former Miss Virginia Edenfield, a daughter, Miss Virginia Green, and two sons, Samuel Green, Jr., and Alfred Green, all of Atlanta. Also by seven sisters, one brother, three grandchildren and several nieces and nephews. Funeral services were held at Spring Hill, with the Dr. Arthur Vann Gibson officiating. The Fulton County Medical Society served as honorary escort. Burial was in West View Cemetery, Atlanta.

* * *

Dr. John Thomas Pettit, aged 69, prominent Canton physician, died August 10, 1949. Dr. Pettit was a native of Cherokee County and the son of the late W. I. Pettit and Florence Burns Pettit. He graduated from the Atlanta School of Medicine, Atlanta, in 1910, and had practiced medicine since 1910. Dr. Pettit took an active interest in civic affairs. He had served two terms as mayor of Canton. He was a member of the Cherokee-Pickens Medical Society, the Medical Association of Georgia, and a fellow of the American Medical Association. He was a charter member and past president of the Canton Rotary Club, and also a member of the First Baptist Church, and a Mason. Surviving are his wife, the former Alma Quarles; two daughters, Mrs. James Palmer, Canton, and Mrs. W. W. Matthews, Birmingham, Ala.; two grandchildren, Mary Ann Matthews and Ellen Palmer, and three half brothers, Homer, Carl and Burl McElreath, all of Canton. Funeral services were held at the First Baptist Church, with the Rev. W. W. Long officiating. Burial was in River View Cemetery, Canton.

* * *

Dr. Wilbur David Wisdom, aged 30, died at Emory University Hospital, Atlanta, July 25, 1949. Dr. Wisdom was born in 1919, the son of Wiley Burge Wisdom and Kate Newborn Wisdom. He graduated from Emory

University School of Medicine, Atlanta, in 1942. He served as an intern at Grady Memorial Hospital before entering the Army, where he served as a captain in the Medical Corps. Following his discharge Dr. Wisdom returned to Grady Memorial Hospital, Atlanta, where he had served as an intern ever since. He is survived by his wife, the former Miss Jane Robertson, of Atlanta; a daughter, Jane Wisdom; parents, Mr. and Mrs. Wiley B. Wisdom, Sr., Chipley; a sister, Mrs. Wm. B. Ragsdale, College Park, and a brother, Lieut. Col. Wiley B. Wisdom, Jr., West Point, N. Y. Funeral services were held at the First Methodist Church, Chipley, with the Rev. Comer Brownlow officiating. Burial was in the Chipley Cemetery, Chipley.

A VACATION SHOULD BE FUN

There is something about spring and the start of summer that brings the thoughts of vacation to everyone. These are good thoughts and should be carried out by all workers, whether they be on the farm or in the office, the Educational Committee of the Illinois State Medical Society advises in a *Health Talk*.

Many persons prefer a winter or spring vacation. Some like to leave the snow and cold to spend a few weeks in a warmer, sunnier climate. Others enjoy the reverse. This is an individual preference that should be indulged in, just so long as it is a vacation.

These periods of change, away from one's regular routine, are most important. They create a new pace, not only in living but in thinking. They provide a "letting up" from chores and responsibilities and create a stimulus that results in a fresh emotional and physical outlook.

Everyone should take a vacation. No matter how well liked or pleasant the job, an individual needs to get away from it for a time. Sticking close to the task day in and day out takes its unconscious toll in the form of restlessness, irritation, "snapping" disposition, and fatigue and boredom that, if ignored, will do harm, not only to the worker, but to the job itself. Effective results cannot be accomplished when one is tired or bored.

The worker, whether he be the executive, the stenographer, or the laborer, needs a rest. But, as in everything else, moderation is required. The sedentary worker, for example, who has had no exercise all year, cannot start out on a thirty-six hole round of golf. His zest for the game will be lost in the body fatigue brought on by aches and pains of strained muscles. Nor can he climb a mountain the first day or walk miles about the country side. He must work gradually to his goal, so that the change accomplishes its objective—the feeling of physical fitness and the well-being that comes with relaxation.

Vacations should be planned with care, so that they do not become a burden financially. One who "plunges" everything he possesses on a vacation will return to his job morose and wondering just how the bills will be met. Make your plans fit your means. Travel accommodations are available that will meet your individual pocketbook.

Maybe your "change of scene" means leisure time for reading, putting in your garden, or doing a hundred little things for which you have no time in your work-a-day year. It doesn't make much difference what the change is, providing it meets the objective of the vacation—literally vacating or getting away from routine.

If your plans include automobile or camping trips, be alert to safety measures in driving and caution in the selection of camping sites. Many a family has started out with happiness in their hearts, only to have accident and disease return them to their homes.

By all means take a vacation. Plan it with all the

interest and enthusiasm to fit your individual desires. Guard your health by avoiding unsanitary eating places, excessive exercise or wearing yourself out by crowding too many activities into a limited period.

Use discretion when you leave the work-a-day world temporarily. Do the things you want to in moderation. Have fun—and relaxation. Make your "change of pace" count. Don't leave wisdom at home in your search of change, for it is wisdom that will return you to your job, with renewed zest, vitality and happiness.

ED BRIDGES

Please read Mr. Ed Bridges' article on page 416.

Mr. Bridges is the new public relations director of the Medical Association of Georgia.

Born down near Ellaville way, later a resident of Americus, a gentleman by heritage and training, one-time school teacher, then a newspaper man, later affiliated with the Associated Press, and finally manager in the campaign for a would-be Georgia Governor, Ed Bridges wishes now to help the Medical Association of Georgia solve some of its public relations problems.

Let's give Mr. Bridges our support.

WANTED — Graduate class A medical school, member good standing medical association, for mental hospital. Age limit 60. Experience in psychiatry desirable, but not essential. Nice residences. Two colleges in immediate vicinity. Submit full information, three references and recent small photograph in first letter. Address, P. O. Box 325, Milledgeville, Ga.

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THE CLINICAL SIGNIFICANCE OF CLOSURE OF THE RETINAL VESSELS*

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Section on Ophthalmology,

Mayo Clinic, Rochester, Minnesota.

The complete cardiovascular system consisting of the heart, arteries, capillaries and veins is an extensive organic mechanism of simple design and function that operates under autonomic control with exquisite precision when in a normal healthy state. The relationship between the various parts is so well balanced that over a wide zone of operating conditions, varying from a very low degree of physical activity to violent stress and physical exertion over an extended period of time, the function of the vascular system is adequate for the needs of the body and its highly specialized organs. The vascular system is the most important, the most uniform and the most indispensable of all the great structural systems of the body permeating as it does all the other systems and organs and tissues to carry the necessary elements to sustain life and to promote activity. The nervous control of the vascular system is indispensable for normal function, but in the absence of normal nervous control in certain parts, the flow of blood is maintained to the extent that life is sustained. The nervous control mechanism in some parts may be suspended temporarily or even totally without the loss of life in the tissues affected, so long as the vascular spaces are open and the flow of

blood is not seriously impeded.

The temporary suspension of blood flow on the other hand soon leads to signs of disintegration of tissue from anoxia. The severity of change is in keeping with the degree and duration of the interference with flow. Complete obstruction of the flow of blood in any portion of the vascular system is bound soon to result in serious local damage to tissues involved. Partial or temporary interference of normal blood flow brings about alterations in function that are in proportion to the needs of organic activity. When the blood supply is inadequate, lowered organic activity may fall to zero. The vascular system is normally subject to control by the nervous system and in the healthy state the response of the vascular system to that control is dependable and predictable. In case of loss of nervous control the action of the vascular system is altered and may be neither dependable nor predictable. If, for instance, loss of nervous control strikes at the heart, the result may be fatal. But with a strong heart, extensive damage to the peripheral vascular system is not incompatible with life, though local organic function is inevitably impaired.

In the study of disease of the vascular system, the circulation of the retina has received considerable attention because of the visibility of the vessels and the ease with which the vascular changes and the results can be followed. While the vascular system of the retina follows the general pattern of artery-arterioles-capillaries-veins, the absence of free anastomoses constitutes a vascular pattern that is unique in that a single artery and vein carry the blood supply to

*The Abner Wellborn Calhoun Lecture read at the meeting of the Ninety-ninth Annual Session of the Medical Association of Georgia, Savannah, May 11, 1949.

and from certain areas of the retina and interference with one of the vessels in this system in this area causes a depletion of blood or excessive congestion that results in definite local pathologic changes characteristic of vascular occlusion. These changes may be clearly seen and studied by means of the ophthalmoscope.

The physiologic plan of the circulation of the retina in man consists of the central artery of the retina which breaks up into four retinal arterioles. These are accompanied by four retinal veins which lead into the central vein of the retina, which usually enters the cavernous sinus. The central artery of the retina is derived from the ophthalmic artery which is a branch of the internal carotid. Immediately after the ophthalmic branch is given off, the diameter of the carotid decreases from 5.4 mm. to 3.8 mm., a factor favoring the maintenance of high pressure in the ophthalmic artery. The vascular pressure in the ophthalmic artery is given by Duke-Elder¹ as 99.5 mm. of mercury, while in the retinal arteries the pressure is 75.5 mm. The mean pressure in the retinal veins is given as 22 mm. while the intra-ocular pressure is estimated at 20 mm. The mean pressure in the retinal veins is approximately 2 mm. above the intra-ocular pressure, while the pressure in a vein outside the eye, an episcleral vein for instance, shows a considerably lower value, being some 7 mm. below the intra-ocular pressure.

Duke-Elder pointed out that when an artery is occluded, the pressure within it builds up to that in the larger branch from which it is derived. In the case of the retinal artery, closure of one of the arterioles may cause the pressure to rise to 99.5 mm. of mercury, the pressure of the ophthalmic artery. It is stated by the same author that the mean capillary pressure within the eye is approximately 50 mm. The capillary pressure is not easily controlled because it

depends upon a variety of factors in the vascular circulation. A drop in the capillary pressure is brought about by constriction of the arterioles, while on the other hand, occlusion of the venous exit causes a marked increase in the capillary pressure. It is thus possible for the venous and capillary pressures to become higher than the normal intra-ocular pressure with resultant edema, congestion and hemorrhages into the retina.

The application of these general principles of cardiovascular regulation to the specific local problems of intra-ocular blood pressure and intra-ocular tension cannot be considered in detail, but a few general points might be mentioned here. Duke-Elder determined by manometric methods in the cat that the mean pressure in the ophthalmic artery is about 95 per cent and that in the retinal arteries about 70 per cent of the mean pressure in the aorta. By use of the dynamometer, Bailliart² estimated the diastolic pressure in the retinal arterioles to be about 40 per cent of the diastolic pressure in the brachial artery. The pressures as measured by this method may be lower than the actual figures, but they furnish a ready and probably fairly reliable method of determining variations from the normal in pathologic states. By the use of a micropipet, Duke-Elder estimated the pressure in the retinal veins to be about 2 mm. higher than the intra-ocular pressure. No accurate method of measuring capillary pressure has been devised, but Duke-Elder estimated the pressure in the arteriolar limbs of the retinal capillaries to be about 50 to 55 mm. of mercury. The intra-ocular pressure varies directly with the blood pressure in the capillaries and, therefore, can be influenced by the general arterial pressure only in so far as variations in systemic pressure will be reflected in the eye. But if this rise of blood pressure is accompanied by contraction of the ocular arterioles, as is

usually the case, the total flow of blood through the eye is decreased and the capillary pressure falls. As a result, no increase in intra-ocular tension occurs. In the case of the elevation of systemic pressure caused by pituitrin, however, Duke-Elder asserted that the vasoconstriction is less marked in the arterioles of the eye than in those of other regions. The increase in blood pressure is, therefore, transmitted to the capillary bed and the intra-ocular tension tends to follow the blood pressure passively.

The intra-ocular pressure is not stabilized by the retinal vessels but by a different arterial and venous system, and operates independently of the retinal vessels. This is evident in cases of hypertension in which the retinal arteriolar pressure is greatly elevated while the intra-ocular pressure is not affected. Obstruction to the venous outflow of the retinal circulation, however, may cause a rapid rise in intra-ocular pressure with congestion of the retina as well as of the extra-ocular tissues, giving rise to what is known as absolute glaucoma.

Closure of the retinal vessels with interference of circulation had long been known as the cause of blindness before the actual mechanism of retinal circulation was known and before the process could be visualized by the ophthalmoscope. The ophthalmoscopic picture of thrombosis of the central vein of the retina was first clearly described by von Michel³ in the year 1878. Since that time, through numerous contributions by von Michel and others, the significance of this retinal picture has been properly evaluated in the literature. von Michel elucidated and accurately described a disease which to be sure had not been unknown but had been insufficiently defined. The cause is unilateral spontaneous thrombosis of the central vein of the optic nerve. Those afflicted are individuals beyond the age of 50 years who suffer from sclerosis of the peripheral arteries, mild hypertrophy of the

left ventricle, and probably pulmonary emphysema as well. The disease has a very sudden onset, just as does embolism of the central artery. Visual ability is markedly lowered to the level of finger counting. The eyegrounds show bloody infiltration of the optic nerve, large streak hemorrhages in its immediate vicinity and smaller ones out to the periphery. The arteries are poorly filled, the veins are extensively dilated and tortuous, and are dark blackish red in color. The outcome is either blindness of the eye, if the vein is completely occluded by the organized thrombus, or improvement of the vision, if the thrombus soon frees itself again. But even in the latter case, there remain behind a bright pigmentation of the optic nerve head and tortuosity of the veins.

Closure of the Retinal Arteries

von Michel concluded that the clinical picture of so-called embolism of the central retinal artery can be produced by thrombotic occlusion. Subsequent to an endarteritis superimposed on arteriosclerosis, clotting of the blood results distal to the most markedly narrowed region. Sudden bloody effusion into the retina, the so-called hemorrhagic retinitis, may result either from a wandering thrombus in the central vein or from a proliferation occluding the lumen of the vein. The pathologic factors concerned in obstruction of the central vessels of the retina have received considerable attention. Complete occlusion of the central retinal artery gives a characteristic picture of retinal edema and ischemia of the retina, with almost universal pallor except for a cherry-red spot in the macula. The retinal arterioles become attenuated, practically invisible, and vision may be lowered to complete blindness. Occlusion of one of the arterioles, branches of the central artery, will cause a similar picture in the region of the fundus supplied by that occluded vessel.

Occlusion of the central artery is usually followed by optic atrophy and total, complete blindness. Occlusion of one of the arterioles of the retina may lead to a scotoma in the field of vision subtending the affected portion of the retina. Recovery of vision following occlusion of the central retinal artery has been reported in rare cases. The administration of amyl nitrite combined with globe massage, a retrobulbar injection of 2 per cent solution of procaine and paracentesis was performed in 1 case twenty-five minutes after the occlusion had occurred. Within an hour the blood was flowing normally through the artery and visual acuity recovered to 20/20 with a full field and a normal retinal color. There was no recurrence. It is stressed that this patient was seen within fifteen minutes of the catastrophe, but cases are quoted from the literature wherein recovery occurred only after many weeks with repeated paracenteses or prolonged treatment with inhalation of amyl nitrite.

Closure of the central artery of the retina or of any of the arterioles may be brought about by spasm of the vessel, by organic thickening of the wall of the arteriole, known as sclerosis, or by a generalized narrowing of the arterioles which probably represents the general increased tone of the arteriolar system. These three distinctive types of alteration occur in the retinal arterioles in the different phases of hypertensive disease. Closure of the retinal arterioles may be found at all ages but more commonly in the ages when high blood pressure is most commonly found. The cause of occlusion of one of the arterioles of the retina may be difficult to determine in any particular case but in the absence of vascular changes due to hypertension it may be assumed that the occlusion comes about as the result of the lodging of a thrombus that has been driven into the retinal circulation from without, or from closure

of the vessel by the building up of the thrombus as the result of a minor injury to the lumen of the vessel. It is generally believed that, in most cases, closure of the arterioles comes about through thickening of the walls of the vessels as the result of hypertensive disease.

Wagener, Clay and Gipner,⁴ in a report submitted to the American Ophthalmological Society in 1946 on the classification of hypertensive diseases of the retina, have designated five stages of hypertensive disease. The first, second and third stages of their classification are concerned with the so-called functional changes in the vessel wall with minor pathologic changes. When generalized arteriosclerosis is present with generalized narrowing of the arterioles, focal constriction in the arterioles and at times focal arteriosclerosis, there is chronic progressive hypertension as a systemic disorder. Terminal malignant hypertension always is associated with generalized arteriosclerosis and generalized narrowing of the arterioles with at times focal constriction and arteriosclerosis. It is quite evident from reports in the literature that embolism of the central artery is usually the result of angospasms causing an acute ischemia of the retina.

Hypertension can arise from an increase in the volume or viscosity of the circulating blood or from increased cardiac output. These factors are said to be normal, however, in most cases of essential hypertension. The rise of blood pressure in these cases depends apparently on the increased resistance to blood flow in the periphery caused by a reduction in the capacity of the general arteriolar bed. In the early phases of the disease this reduction in capacity is the result of functional contraction of the arterioles rather than of structural changes in their walls with the consequent decrease in lumen. Whether this contraction of the arterioles is due to increased stimula-

tion of the sympathetic motor nerves or to the direct action of a chemical or hormonal substance on the walls of the arterioles has not as yet been definitely demonstrated. When functional contraction of the arterioles persists or recurs at intervals for an indeterminate period, which varies considerably in different individuals, structural thickening of the walls of the arterioles is added apparently to the functional contraction as a factor in reducing the capacity of the arteriolar bed. This anatomic change in the walls of the arterioles, which is primarily hypertrophy of the media, is observed most frequently or constantly in the arterioles of the kidneys, but it is by no means confined to the kidneys and may be observed in many other organs and tissues such as the voluntary muscles, liver, intestinal wall, brain, retina and choroid.

Gowers⁵ wrote in 1876 that "when the retina is free from local disease, there is no reason to believe that the retinal artery and vein differ in this condition from other arteries and veins of the same size, and, therefore, any marked change in their state apart from cerebral or ocular disease may be taken as evidence of a similar change throughout the vascular system."

The conception of retinal arteriosclerosis as a part of general and cerebral arteriosclerosis has been strengthened in recent years by the studies of many observers and it has become increasingly apparent that the lesions observed ophthalmoscopically in the retinal arterial branches are really arteriosclerotic in their characteristics and systemic significations. The so-called retinal arteriosclerosis is a part of hypertensive disease and diffuse arteriosclerosis and not atherosclerosis.

Closure of the Retinal Veins

In the first and classical description by von Michel in 1878, two major and one minor factors concerned in the production

of retinal venous thrombosis were clarified: first, the toxic condition that produces the endophlebitis or mesophlebitis whence the thrombosis can originate; second, the slowing of the blood stream in the retinal arteries with corresponding slowing of the blood column in the vein, thus permitting fibrin and cells to be deposited at the site of the thrombus; and third, the minor factor, the anatomic malformation of the vein which contributed to the slowing of the blood stream. Gradle⁶ stated that "Lauber was probably the first to emphasize the importance of the arterial slowing." Gradle found that in all cases of central vein thrombosis the central artery was markedly decreased in caliber, but whether due to systemic disease or a purely local condition could not be determined. But even though the blood stream be slowed, fibrin and cells will remain in suspension unless there is a rough spot upon which deposits may collect. Verhoeff⁷ expressed the belief that such a rough spot is purely endothelial proliferation and that thrombosis in the true sense of the word does not exist. Gradle gave the mechanism of production of retinal venous thrombosis as follows: first, narrowing of the lumen of the retinal artery results in a marked decrease in the rapidity of the blood stream; and second, as the result of a generalized toxemia or sclerosis an endophlebitis or mesophlebitis appears in a vein. This inflammation produces a roughened nodule primarily probably of endothelial cells that protrude into the lumen of the vein.

The mechanism whereby the veins of the retina become occluded is still the subject of considerable controversy. Klein⁸ has written that the mechanisms of occlusion of the central retinal vein may be grouped into four types as follows: first, occlusion by compression from without the vessel and secondary thrombus formation as in some

types of arteriosclerosis and phlebosclerosis or in tumor metastasis into the optic nerve; second, occlusion by primary thrombus formation in blood dyscrasias such as polycythemia and thrombocythemia; third, occlusion by stagnation thrombosis following widespread arterial spasms—to this type belongs venous occlusion caused by (a) early spastic hypertension, (b) a surgical procedure or cranial fracture, and (c) congenital heart disease; and fourth, occlusion by inflammatory disease of the venous wall and secondary thrombus formation. On microscopic study of central venous obstruction variations are seen ranging from a thrombus lying within an almost normal vein to complete fibrous atresia. Causative factors may be (a) primary sclerotic changes in the vein wall causing an increasing obstruction; the resulting slowing of the circulation may be accentuated by arteriosclerosis; and (b) infective changes in the vein wall with secondary thrombus formation. These may be associated with influenza, syphilis or pyemia.

In venous obstruction, the main back-pressure effect will be on the capillaries and the postcapillary venules in the form of capillary hemorrhages, micro-aneurysms and soft exudates, and in the visible veins as stasis and anoxic degeneration (sheathing and fatty degeneration of the outer coat). Capillary hemorrhages or aneurysms alone indicate incomplete blockage of mild degree—massive hemorrhages, a more complete obstruction. McPheeters,⁹ writing on the subject of thrombo-embolism and thrombophlebitis, stated: "Both clinically and pathologically phlebothrombosis and thrombophlebitis are in a sense one and the same thing. They both mean a closure of the lumen of the vein with a blood clot. It is just a question of the degree of the inflammatory phase of the condition present. Phlebothrombosis means just a

closure of the vein with a simple blood clot like a postmortem clot. It is not fixed to the wall of the vein at all and stays in position only because of the stagnation of the blood stream and the branching of the veins. On the other hand, thrombophlebitis means that there is an inflammatory phase present and because of this the thrombus is thick and adherent to the walls of the vein so that seldom does it break loose and cause an embolism. This happens only as the inflammatory part of the picture disappears and the thrombus terminates in the simple red clot. In the presence of stagnation the thrombus may extend far along the vein and thus gradually pass over into the phlebothrombosis and it is this part that gives the embolism. The true phlebothrombosis carries a very high incidence of mortality. The true and marked case of thrombophlebitis has a very low one. On the other hand, it causes much morbidity and oftentimes results in crippling for life."

Since thrombosis of the central vein and its tributaries is a rather frequent occurrence in patients having arteriosclerosis and hypertension, the clinical significance of the occlusion of the retinal vessels is at once apparent. While occlusion of the vessels may produce blindness, only seldom does the disease set up a condition within the eye which necessitates enucleation. Consequently, comparatively few cases are available for pathologic study in the early stages of the disease.

Five hundred cases of closure of the central vessels of the retina encountered at the Mayo Clinic were studied to determine the age of incidence of the closure of the vessels and to correlate these vascular accidents with other vascular complications. In the group studied there were 132 cases of closure of the central artery of the retina or its branches, 361 cases of closure of the central vein or its tributaries, 5 cases of bilateral

thrombosis, 1 case of trauma and 1 case of thrombosis in a patient who was being treated by the intravenous injection of sodium morrhuate. As the lesions in the last-mentioned 7 cases evidently were not due to disease of the vascular system they have not been included in consideration of the main group of 493 cases of closure of the central retinal vessels.

Of the 132 cases of closure of the central artery, 10 occurred in patients before the age of 30. Thirty-nine cases, or 29.5 per cent, of the total, occurred in the sixth decade; 28, or 21.2 per cent, in the seventh decade; and 24, or 18.1 per cent, after the age of 70. It can be seen that most of the cases of closure of the central artery of the retina occurred in patients within the age span of chronic hypertensive and diffuse arteriolar disease (table 1).

Thrombosis of the retinal veins occurred in 361 cases. Here again the great majority were in the sixth and seventh decades. One hundred and two persons, or 28.3 per cent of the total number investigated, experienced thrombosis in the sixth decade while 119, or 33 per cent, had it in the seventh decade, an indication that thrombosis of the retinal vessels is a result of arteriosclerosis and as a rule occurs at a later period in life than does embolism of the central arteries (table 2).

Arterial and venous occlusion in the same eye occurred in only 7 of the 500 cases, and 5 of the 7 were in patients in the sixth and seventh decades of life (table 3). Of the 361 cases of retinal venous thrombosis, secondary glaucoma occurred in 41, or 11.4 per cent (table 4). There was only 1 case of glaucoma in 132 cases of closure of the central artery. Severe systemic arteriosclerosis and hypertensive cardiovascular disease were found in only 13.4 and 12.1 per cent, respectively (table 5).

Contrary to the frequently made state-

ment that vascular occlusion in the retina usually occurs early in the course of hypertensive disease and in arteriosclerosis, the findings in the cases reviewed in this study showed that generalized arteriosclerosis and hypertensive disease were more likely to cause retinal thrombosis in the sixth and seventh decades. Of the 132 cases of arterial occlusion, systemic arteriosclerosis was found in 9, or 6.8 per cent; hypertension in 18, or 13.6 per cent; coronary disease in 8, or 6.1 per cent; and cerebral accidents in 17, or 12.9 per cent. Of the 361 cases of thrombosis of the central retinal veins, generalized arteriosclerosis was found in 9, or 2.5 per cent; hypertension in 53, or 14.7 per cent; coronary disease in 16, or 4.4 per cent; and cerebral accidents in 14, or 3.9 per cent. Arteriosclerosis and hypertension were more common in cases of occlusion of the central artery of the retina while coronary involvement and cerebral accidents were more frequently found in cases of thrombosis of the central retinal vein (table 6).

Thrombosis of the central vein of the retina or one of its branches or tributaries is the rather frequent cause of loss of vision in middle-aged or elderly individuals. It frequently is considerably greater among patients with relatively benign hypertensive disease than it is in the general population or in patients with severer forms of hypertensive disease. The majority of patients who present themselves with loss of vision due to thrombosis of a retinal vein are in other respects in relatively good physical condition, so that the loss of vision is their primary concern. The average age of occurrence of this type of vascular accident is 57 years, so that many of these patients have the expectancy of a number of years of active life. It would seem, therefore, that any form of treatment would be worth while which would offer a chance of restoring useful vision to the affected eye.

It would appear from the reports in the literature that treatment with heparin when instituted early gives excellent results. Heparin is the most active of all anticoagulants. It is nontoxic and its use in no way interferes with analysis of the blood. It is believed that heparin prevents further increase in the thrombotic process, thus permitting greater canalization and resumption of the normal function of the vein.

In 1930 Löwenstein and Reiser¹⁰ suggested roentgen-ray therapy to the affected eye and in 1938 Holmin and Ploman¹¹ reported the use of heparin in the treatment of a patient with thrombosis of the central vein of the retina.

The final acuity of vision obtained in cases of untreated thrombosis of the central vein is usually considerably poorer than it is in cases of thrombosis of tributary veins. Stimulated by a report of Hessberg on rapid and complete absorption of hemorrhages in the retina following irradiation of the eye, Löwenstein and Reiser decided to try the effect of radium and small doses of roentgen rays on thrombosis of the retinal vein. They thought originally that the rays might have a direct thrombolytic action and that they might stimulate the formation of collateral circulation. Later, however, they decided that these two effects could not be demonstrated. They concluded that the essential effect of the roentgen rays was that of vasodilation by which an active hyperemia was induced which increased the rate of absorption of the hemorrhagic extravasation. They suggested also that roentgen-ray therapy might prevent the development of secondary glaucoma by decreasing the secretion of the ciliary body. Löwenstein and Reiser thought that irradiation of the eye was indicated especially in cases in which a specific tuberculous or syphilitic affection of the intima of the vein was the basic cause of the thrombosis. They expressed doubt that this meth-

od of treatment would be of any value in cases of thrombosis of the central vein in which the obstruction was caused primarily by thickening of the connective tissue in the lamina cribrosa or in cases of tributary vein thrombosis in which the obstruction resulted from compression of the vein by a sclerosed arteriole.

In 1932 Schnyder and Forster¹² reported on the treatment of 7 patients with thrombosis of retinal veins by irradiation, according to the method of Löwenstein and Reiser, but using somewhat smaller doses. They stated that in all 7 cases they had the impression that as a result of the roentgen-ray therapy, the hemorrhages were absorbed considerably more rapidly and completely than was usual in cases of thrombosis of the retinal vein.

Later reports on the results of irradiation treatment have not been so encouraging. In 1937 Gradle⁶ published the results obtained by irradiation in a series of 16 cases. He was particularly interested to see if this type of treatment was of any value in preventing the development of secondary glaucoma, a point which had not been considered by the other authors. The results obtained were compared with those of a series of 21 untreated patients who had been observed over a similar period of time. Pilocarpine was used as a prophylactic against the development of secondary glaucoma in the cases of thrombosis of the central vein in this second group. The patients in each group were observed over a period ranging from several weeks to ten years. Gradle stated that he did not think that irradiation accelerated the absorption of the hemorrhages or that it improved the end results so far as vision was concerned. He expressed the opinion that irradiation might be of some value in the prevention of secondary glaucoma.

In March, 1938, Holmin and Ploman¹¹ reported the results obtained in a case of

thrombosis of the central vein of the retina which they treated with heparin. The vision shortly after the onset of thrombosis was 6/30. Heparin therapy was started forty-one hours after the onset. Three to four times a day a dose of 1.66 mg. per kilogram of body weight was given during a period of about ten days. The ophthalmoscopic picture did not change materially during the time of administration of the heparin but the vision improved to 6/7. During the following week the hemorrhages absorbed gradually. At the end of three months the vision was 6/6.

Ploman had studied previously 13 patients with thrombosis of the central vein. Nine of these have become blind, 8 from secondary glaucoma and 1 from proliferating retinitis in the passage of the retina. In Ploman's opinion, the obstructions to the blood flow in the patient treated with heparin was not complete at the time he saw the patient. In most cases, he thinks, clots accumulate on the thrombus and finally produce complete obstruction. Heparin prevents this further growth of the thrombus and permits retraction of the fibrin already present in the clot so that the obstruction to the circulation is reduced. Ploman thinks also that the heparin may diffuse through the capillary walls and into the tissues so that they become heparinized. As a result, the blood in the hemorrhagic extravasations in the retina remains more liquid and normal conditions can be restored more rapidly.

In June, 1938, Ploman¹³ reported his further experiences with heparin treatment of thrombosis of retinal veins. He used in hospital patients a daily dose of 250 mg. divided into four doses and in out-patients 200 to 300 mg. daily in two doses. Treatment was continued for five to ten days.

Two additional patients with thrombosis of the central vein were treated. In 1 of these at the end of three weeks the ophthal-

moscopic appearance was considerably improved and vision had increased from the ability to distinguish hand movement to the ability to count fingers at 4 meters. In the other, after six weeks' treatment with potassium iodide vision had decreased from 6/8 to 6/9. One month after three days of heparin treatment vision was 6/6. He treated also 6 patients with thrombosis of a tributary vein. In one of these there was no improvement and the vision was still 6/60 at the end of six weeks. In another, vision improved from 6/20 to 6/9 in two weeks, but one week later the second thrombosis occurred which reduced the vision again to 6/20. Heparin did not help this second thrombosis.

In 1940 MacDonald¹⁴ reported the results obtained by the use of heparin in 1 case of thrombosis of the central vein of the retina and in 1 case of thrombosis of the macular branch of the superior temporal vein. In the case of thrombosis of the central vein, treatment was started two weeks after onset when vision was sufficient to permit counting fingers at 2 meters. Heparin was given by the continuous drip method and the clotting time was kept at or above thirty minutes for five days. At the end of six months vision was 4/36.

In the case of thrombosis of the tributary vein, treatment was started three months after the onset of the thrombosis when the vision had decreased from 6/36 to 6/60 and the hemorrhages had increased in number. Heparin was given by the continuous drip method and the clotting time was kept at or above twenty minutes for five days. At the end of six weeks, vision was 6/18 and no new hemorrhages had occurred.

In the discussion of MacDonald's paper, Gifford¹⁵ stated that he had used heparin in the treatment of 2 patients with thrombosis without improvement in vision. Rychener¹⁶ reported on 5 cases of thrombosis of the central vein. Heparin was given intermit-

tently in 1 and by the continuous drip method in the other. The final vision obtained was less than 6/60 in 4 cases and 6/20 in 1 case. He treated also 2 patients with thrombosis of the tributary vein. Final vision was 6/10 in 1 case and 6/6 in the other. In his paper, MacDonald called attention to the apparently spontaneous cure of an occasional thrombosis of the central vein in a young individual. Verhoeff⁷ stated that in his opinion most thromboses of the central vein in elderly individuals are really obstructions of the vein caused by obliterating endophlebitis and that actual thrombosis occurs only rarely and then in young individuals. At the clinic we have observed a case of thrombosis of the central vein treated with heparin in which the hemorrhages were completely absorbed from the retina within six months after the onset and vision returned to 6/6. During essentially the same period in another case, thrombosis of the central vein cleared up completely under treatment with only potassium iodide, and vision of 6/6 was regained in this case also.

Very encouraging results with the use of anticoagulants have been reported during the past ten years. The introduction of dicumarol has greatly simplified the treatment. The combination of heparin and dicumarol gives theoretically the best results.

The restoration of vision following treatment depends upon the extent of the interference with the blood flow and the duration of the obstruction before treatment is begun. It is quite uncommon to note improvement in the condition of the vessels even after the hemorrhages have been absorbed, and circulation is re-established by canalization or anastomoses. The best results can be expected in those having only mild arteriosclerotic changes and the poorest results in cases of rapidly progressive hypertensive disease.

A review of the data on cases of closure

of a retinal vessel encountered at the clinic has shown that the ophthalmoscopic picture of the pathologic fundus in hypertensive disease and in arteriosclerosis is a fair indication of the condition of the vascular system as a whole and the finding of severe vascular spasm and advanced arteriosclerosis in the retinal vessels is an indication of a systemic vascular disorder of grave significance. Thrombosis of the retinal vessels is not unlike thrombosis in other parts of the body. However, there is probably this difference, that in the retinal vessels there is more often an inflammatory element. In any case the prognosis for recovery of vision is grave and the vascular disease is well established throughout the entire system. The fact that the early vascular changes can be seen in the fundus of the eye oftentimes before any symptoms of vascular disease can be detected elsewhere makes the ophthalmoscopic examinations of inestimable value.

TABLE 1
Age Distribution of 132 Patients with Thrombosis of the Central Artery of the Retina

<i>Age, years</i>	<i>Cases</i>	<i>Per cent</i>
Less than 29	10	7.6
30-39	12	9.1
40-49	19	14.4
50-59	39	29.5
60-69	28	21.2
70 or more	24	18.1

TABLE 2
Age Distribution of 361 Patients with Thrombosis of the Retinal Veins

<i>Age, years</i>	<i>Cases</i>	<i>Per cent</i>
Less than 29	13	3.6
30-39	15	4.2
40-49	57	15.8
50-59	102	28.3
60-69	119	33.0
70 or more	55	15.2

TABLE 3
Age Distribution of 7 Patients with Occlusion of Both Retinal Artery and Vein as Encountered in 500 Cases of Retinal Vessel Occlusion of Various Types

<i>Age, years</i>	<i>Cases</i>
Less than 29	1
30-39	0
40-49	0
50-59	3
60-69	2
70 or more	1

TABLE 4
Age Distribution of 41 Patients with Secondary Glaucoma out of 361 Patients with Retinal Venous Thrombosis

Age, years	Cases
Less than 29	1
30-39	1
40-49	2
50-59	16
60-69	11
70 or more	10
Total	41 (11.4%)

TABLE 5
Age Distribution of 18 Patients with Arteriosclerosis and 24 Patients with Hypertensive Cardiovascular Disease Encountered Among 493 Patients with Occlusion of the Retinal Vessels

Age, Years	Cases	
	Arteriosclerosis	Hypertensive cardiovascular disease
Less than 29	0	1
30-39	0	0
40-49	1	0
50-59	4	9
60-69	10	10
70 or more	3	4
Total	18	24
Per cent	13.4	12.1

TABLE 6
Cardiovascular Complications Occuring in 132 Patients with Thrombosis of the Central Retinal Artery and in 361 Patients with Retinal Venous Thrombosis

Age, years	Arterio-sclerosis		Hyper-tension		Coronary Disease		Disease of Central Nervous System	
	A*	V†	A*	V‡	A*	V†	A*	V†
Less than 29	0	0	0	1	0	0	1	0
30-39	0	0	0	2	0	1	1	0
40-49	0	0	3	12	1	0	2	1
50-59	1	1	7	21	5	5	5	6
60-69	2	2	7	15	0	8	3	4
70 or more	6	6	1	2	2	2	5	3
Total	9	9	18	53	8	16	17	14
Per cent‡	6.8	2.5	13.6	14.7	6.1	4.4	12.9	3.9

* "A" means "thrombosis of the central retinal artery."

† "V" means "retinal venous thrombosis."

‡ The percentages in the "A" columns are based on 132 cases; in the "V" columns, on 361 cases.

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EPILEPTIC VARIANTS OFTEN MIS-TAKEN FOR THE PSYCHONEUROSES: DIFFERENTIAL DIAGNOSIS AND TREATMENT

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The two most common symptoms of epilepsy, the major convulsive seizure and the minor or petit mal blank spell, are readily recognized by all physicians. There are numerous other manifestations of epilepsy, however, which are not so well known and therefore frequently omitted from the initial differential diagnosis.

In 1907 Gowers¹ published his famous short monograph entitled, "The Borderland of Epilepsy". Many of the cases which he placed in this borderland would now, without hesitation, be labelled genuine epilepsy. Advancing knowledge has expanded the boundaries of epilepsy and has made it possible to explain many otherwise strange and mysterious actions and behavior patterns. Though the limits of this field have been extended, the borderland remains and now is even greater than in the days of Sir William Gowers. By taking advantage of this newer knowledge, however, we may be prepared to recognize, or at least be suspicious of, the unusual epileptic profile when we see it.

Neurophysiologic studies have demonstrated that an epileptic attack is due to abnormally vigorous discharges arising

from nerve cells, located in the grey matter of the central nervous system. As this local or ictus discharge spreads from its point of origin to neighboring cell groups, it first stimulates, and then produces temporary paralysis of function of these nerve cells along its path of radiation. We must remember that the central nervous system is unique among all the organs of the body in its relation of structure to function. It is composed of vast numbers of cells arranged in groups or layers. Its uniqueness arises from the fact that each of these groups connects with different anatomic structures, and controls or modifies the specific function of these structures. This specificity of nerve function ranges, for example, from the highest levels of thought and memory, to movement and sensation of the little toe, and includes also the nerve control of the blood vessels and viscera. Since any group of neurones may be guilty of issuing abnormal discharges, it is evident that numerous heterogenous symptoms of epilepsy may occur. And likewise, these symptoms will run the gamut of abnormal alteration of behavior, ideation, sensation, motor activity and of visceral function.

The symptomatology of petit mal and of grand mal attacks is fairly uniform from patient to patient, and these may be called standardized seizures. The epileptic variants, however, have no standard pattern and present diverse manifestations; it is indeed extremely rare for any two patients to describe to the physician identical symptoms. Specific descriptions of individual cases is, therefore, of no great value except to show the enormous diversity of reactions that can be caused by the discharges responsible for epilepsy. I wish to mention some of these as illustrations of the complexity of the clinical problem.

A young garage mechanic consulted me because he was about to lose his job. He had been accused of being either malicious or an irresponsible prankster. His story was that almost daily his monkey wrench would suddenly fly out of his hand. Twice the wrench had

just missed hitting a fellow worker on the head. He also told me that occasionally, while combing his hair, the comb would be propelled from his hand across the room. On questioning, he recalled two instances when his right leg had suddenly jerked out from under him, precipitating a fall. These coordinated muscular jerks obviously were entirely involuntary. He gave no history of ever having had a convulsion nor even a spell of momentary unconsciousness, either of which would have been a clue to the correct diagnosis. This patient had myoclonic epilepsy—a variant known for a long time but more often missed than recognized.

Another case of the same type was a young girl who had been punished repeatedly by her parents for constantly throwing dishes out of her hand and breaking them. This also was myoclonic epilepsy. In both of these cases, future epileptic misdemeanors were completely prevented with dilantin sodium (diphenylhydantoin).

The syndrome of an irresistible and uncontrollable desire to sleep is characteristic of *narcolepsy*. The victims of this form of epilepsy, regardless of what they may be doing, will suddenly fall asleep and awaken some minutes later. On awakening they do not usually have the temporary groggy feeling that immediately follows normal sleep. These narcoleptic seizures are greatly helped by either amphetamine or desoxyephedrine hydrochloride. Often associated with narcolepsy are the strange attacks of suddenly becoming limp all over and, if standing, the individual will sink to the ground. These seizures are called *catalepsy*, and the limpness is due to sudden loss of muscular tonus. They are precipitated by an unexpected loud noise or by emotional reactions, especially laughing and, less often, crying. One of my patients was afraid to cross a street in traffic because the sound of a car horn would cause him to collapse and another had learned never to laugh.

Epileptic discharges from the autonomic centers in the hypothalamus will cause variable symptoms referable to that system. Among these there may occur sudden dilation of the pupils, flushing of the face, gooseflesh, tachycardia and tremulousness. Such autonomic seizures are usually mistaken for anxiety attacks. Here, also, we see the syncopes from abnormal neural discharges over the vagus nerves—akin to the

carotid sinus syndrome only in similarity of the faint.

At a higher level are encountered such manifestations as bouts of mental dullness, during which the patient is unable to think clearly, concentration is impaired and he is unable to solve problems. In 1941 Putnam and Merritt² reported several such cases in which they were able to prove, beyond questionable doubt, the epileptic nature of these episodes of mental retardation.

The psychomotor variants are legion in number and fascinating because of their heterogeneity. I saw one patient who patted the side of his face with his right hand for about one minute; during this time he could not talk, and afterwards could remember nothing of these attacks. A patient of Kinney Wilson's³ would hop around the room on one foot; there are numerous other reports of somewhat similar bizarre coordinated behavior patterns. Other psychial variants include such episodes as lapses of memory, uncontrollable outbursts of temper, temper tantrums in children, disorientation in space or time, feelings of strangeness during which persons and places seem unfamiliar, and the so-called dreamy states of the uncinate syndrome.

Also, I would like to mention a case reported by Erickson⁴ in 1945. The patient was a highly moral, and very much respected married woman, who started having sudden episodes, characterized by greatly enhanced and almost uncontrollable sexual desire. These attacks were puzzling, embarrassing and mortifying to the patient. This psychic variant was shown to be an expression of epileptiform discharges from the cerebral cortex. The cause of the cortical irritation was found to be a tumor situated near that portion of the brain which innervates the perineal region. We have here a case of nymphomania, caused by abnormal neuronal discharges, which were

provoked by a brain tumor.

The first step toward correct diagnosis is to be aware of the fact that the patient's complaints may be due to epilepsy, with its numerous variants. Most of these patients show a paucity of signs on examination. Meticulous history taking, though long and perhaps tedious, is essential. Particular attention must be paid to the chronologic sequence of events. Electroencephalography may or may not be of assistance; it often beautifully substantiates the clinical impression, but a normal electroencephalogram will not rule out epilepsy.

Four characteristics common to most epileptic seizures will greatly assist with the diagnosis: First, the attacks are episodic in nature; second, the beginning and termination of each episode are well defined; third, each seizure tends to follow the same pattern; fourth, the attacks are usually unmotivated and unrelated to environmental factors. It is not unusual for these variants to be succeeded sooner or later by generalized fits. The true epileptic nature, of many strange behavior reactions, is frequently unsuspected until these more readily recognized manifestations occur.

When the diagnosis of epilepsy has been made, the causation of the fits must be established, so far as possible, before appropriate treatment can be started. Seizures are caused by any change in the body which enhances the irritability of the nerve cells. This may be mechanical, such as brain trauma, tumor or hemorrhage; metabolic, such as low blood sugar; toxic, as from lead, arsenic, metrazol or strychnine; or from some inherent and still obscure disorder of the neurones which is called idiopathic (cryptogenic) epilepsy. Careful clinical and neurologic study is essential before we are justified in labelling the seizures as "idiopathic". Any of the epileptic variants may result from such serious conditions as a brain neoplasm or a degenerative disease

of the nervous system.

If the seizures are found to be due to a non-surgical condition, treatment should be started with the anti-convulsive drugs now at our disposal. Those in common use are the barbiturates, bromides, dilantin, mesantoin and tridione. Much has been written concerning the efficacy of these various medicines for different types of seizures; it is beyond the scope of this paper to discuss these in detail. However, the object of treatment is to find the drug or combination of drugs that will most efficiently and in the smallest dosage, control the seizures of the individual patient. No hard and fast rule can be applied, and this is especially true in treating the epileptic variants. Thorough familiarity with the actions of the anti-convulsive drugs,⁵ and a knowledge of the type or types of seizures to be treated, will lead to a definite rationale for drug trial until the best regimen is found.

The barbiturates probably are more universally effective against all types of seizures than any other preparation; it is for this reason that they are so often used alone or in combination with other drugs. Dilantin and mesantoin are a boon in treating grand mal but may make petit mal occur more frequently. On the other hand, tridione is very beneficial in true petit mal but not very helpful for grand mal or psychomotor seizures. It has been mentioned that myoclonic epilepsy may be well controlled by dilantin, and narcolepsy by one or more of the cerebral stimulants. Both dilantin and mesantoin are useful in psychomotor attacks, and also in such variants as bouts of mental dullness, outbursts of temper and periods of irascibility. As a general rule, in treating most of the variants, the most practical therapy to begin with is dilantin or mesantoin to which one of the barbiturates may later be added, if necessary. It is my preference to determine first the results of the specific anti-convulsive drugs,

such as dilantin, mesantoin and tridione, before using the barbiturates; in this manner valuable information can often be obtained concerning the type of seizures under treatment.

In conclusion, I would again like to emphasize the importance of keeping in mind the concept of epilepsy and its diverse clinical manifestations. Only by so doing can we be sure that these patients receive the benefits of available therapy, and not be falsely accused of being neurotic, malicious, or just plain queer. It is also important that both the perplexed patient and puzzled family be given an adequate explanation of what is happening, what to expect and what can be done about it. The first objective in this problem is to place the blame for strange behavior squarely where it belongs. If epilepsy is the cause it should be convicted, and the fault not placed on inner conflicts, frustrations, sexual maladjustments and other well known causes of the psychoneuroses.

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THE EMOTIONAL ASPECTS OF PHYSICAL DISEASE

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This discussion deals with those aspects of physical disease which have to do with the individual feelings of our patients and are not described under the usual discussions of disease syndromes. These are the individual emotional reactions to develop-

ing symptoms, coming to the doctor, and the physician-patient relationship itself. This subject is elemental to all of us because it involves the understanding of human emotions which we all develop as we grow up and which we are bound to ruminate upon many times in trying to understand why a person reacted to some occurrence in a particular way. Actually, we all have our own particular, or should we say, individual ways of reacting to situations and experiences, but our everyday relationships are such that we very rarely let anyone else know just what our reaction is to a given situation, and, instead, we try to maintain just as calm and normal an appearance as we can in order to keep other people from knowing our real inner feelings. It is just this fear of communicating our real inner feelings which is at the bottom of many difficulties in understanding our fellow man. If we could be more honest in expressing our feelings, we would gain more freedom of expression, and at the same time, relieve the inner tension or anxiety which we normally develop in everyday relationships with other people.

There have been many references to the fact that the old time family doctor practiced better psychosomatic medicine than many of us today, and that may very well be true. Our scientific medical training today places a premium on the mechanical understanding of diseases as entities within themselves without taking into consideration the role of the individual patient's own attitudes, family relationships, religion, and everyday personal contacts in the development of the illness. The family doctor used to have to make a diagnosis on the basis of his own observations of the patient in his home environment and he had direct knowledge, as a rule, of the whole family picture so that he naturally took all these elements into consideration in making his diagnosis

and recommending treatment. He also held a definite place in the family as a respected adviser with authority far outreaching the limited authority we are given today. Our retreat behind the convenient cloak of science has preserved for us some of the respect and authority, but at the same time we have lost the direct, friendly, accepting attitude which played such a large part in working out emotional problems in the doctor-patient relationship.

The practice of medicine has gone through a cycle in which at first efforts were concentrated on understanding each individual patient and the symptoms he presented, and treating those symptoms. As symptoms were correlated into separate disease syndromes and laboratory facilities were used to establish diagnoses, the relationship with the patient became more a mechanical one in which the problem was looked upon as a disease to be treated much more than as a person who had trouble. This emphasis on the mechanical understanding and treatment of disease has brought us a long way, but now we are coming to realize that many of the pictures we see are not explained on a mechanical and physical basis, and we realize that the patient's own emotional feelings enter into his getting sick, coming to the doctor, and response to treatment. The patient no longer comes to the doctor with the blind faith in the doctor's ability to cure; instead, he comes realizing that his doctor has a wide and sometimes specialized knowledge of human ills, but that each practitioner has his own limitations.

Because of our own training and the security it gives us we usually concentrate on our own objective findings and conclusions derived from (1) the history the patient gives us, (2) the symptom complex apparent, and (3) the results of laboratory examinations and other special diagnostic

studies. We are apt to lose sight of the fact that this patient has definite emotional feelings of his own about his symptoms, about coming to consult a physician, and about the diagnosis and treatment recommended by the physician.

The patient's own feelings constitute the subject of this paper. We all know that there are people who are sick or have some symptoms of illness for a long time without ever even consulting a physician. We can conclude from this that there is some reason, or shall we say, some emotional drive which brings the patient to our offices. Many times this is clear cut, such as in cases where there is definite incapacity, disabling pain, or other obvious reasons for seeking help, but on the other hand there are certain people who seem to come just because they want someone to talk to, or someone to stick them with needles, or someone to give them advice. Some of these people will tell us directly what they want, but the majority of people are reluctant to admit any need for emotional contact with another human being, and for that reason when they come to the doctor the physical complaint may be their way of expressing that need. This physical expression of need is the doctor's traditional field of action and some of us function best when we have some definite physical disease with which to work. The presence of physical disease by itself, however, is never the whole picture.

We are all familiar with the student in medical school who develops symptoms of the disease the class happens to be studying at the time, and when examined is found to have no physical disease; or the patient who comes in complaining of headache and has the fear that he may have a brain tumor; or the woman who complains of soreness in her breast and has the fear it may be cancer. Some might refer to these expressions of pain, or fears of tumor as imaginary

illnesses, but anyone who has suffered these symptoms will tell us that they were just as real as the pain of a stubbed toe or the fear of a whipping from daddy. Is it right that we should pass these off with a reassurance that there is no physical basis for the complaint, or do we have an obligation to give some positive help if we can? Through widespread education and advertising, the general population today has a smattering of knowledge about many of our more serious diseases; and when they develop symptoms which they may link with these diseases they occasionally fear that they have the disease itself. This education is, of course, worthwhile, but on the other hand it gives individuals with anxiety an opportunity to focus on minor physical symptoms. These in themselves may not be serious, but the mere fact that they come to the doctor with them implies that they are concerned about themselves and their bodies, and they will welcome an opportunity to talk out their feelings about themselves. Sometimes the mere statement from the doctor, "It surely must have worried you to feel you might have cancer," is sufficient to allow them to go into their feelings about this.

There are certain illnesses which excite more anxiety than others. The person with tuberculosis in the family is much more afraid of the slightest cough than the average individual who does not have the spectre of T. B. hanging over him. The person with heart disease in the family is much more conscious of changes in heart rate, shortness of breath, or pains in the left chest. The person whose parent died following an operation is much more afraid of surgery, and the person whose mother died in childbirth is more afraid of pregnancy. We all know that cancer, syphilis, and heart disease are frequently feared by all individuals, and when fear of one of these is expressed it may be the individual's way of saying,

"I'm afraid something is going to happen to me which I can't handle and I want some help with it". A simple expression from the doctor of interest in his feeling of fear may be sufficient to allow the patient to talk out his own feelings about this fear. It is not so important that the physician inform the patient that he does not have the disease as it is that the physician listen to the patient until he has talked out his anxieties. At that time a simple statement of medical findings has a great deal more value, because the patient is able to accept it with the knowledge that the doctor really does understand him, and feels there is nothing to worry about. If you said there was nothing to worry about earlier, you would have been saying it without understanding just what was going on in the patient's feelings.

Each individual, as he grows up, has an infinite number of experiences to which he attaches his own meaning, and his reaction to any later event in his life is determined by his own understanding of the event as it appears to him in terms of his past experiences. Consequently, the emotional reaction of each one of us is a highly individual problem and the feelings of one person about his illness do not enable us to predict conclusively the feelings of other people about the same illness. Illnesses occurring at various stages in our development tend to have special emotional significance depending upon the nature of our own personal problems. We are all familiar with the child's fear of the doctor, but many times we do not realize that this is a natural fear at this age because of beginning realization of his own limited physical capacities as compared with the power of the people about him. The child is afraid to submit to anyone, not only the doctor, because the child is afraid of being overwhelmed by anyone with greater power than he possesses. Children at any age are afraid of anything which affects their genital organs

because they realize quite early the significance of the genitalia in their lives. Adolescents of both sexes are apt to feel that any illness occurring during this period might in some way be caused by masturbation and although they do not mention it, unless the doctor gives them an opportunity, this is practically always of some concern to them. The youthful male with pain in the back and a distended prostate may have intense sexual preoccupations which he wants to discuss, and the female with pain in the back or lower abdomen may have the same problem. During the period of early middle age, women, in our culture, are apt to have more emotional problems than men, although both are subject to intense anxieties at this time. The complaints of headaches, hot flashes, menorrhagia, dysmenorrhea, and other symptoms of the menopause are apt to have a large emotional component because of the anxieties women of today have concerning the menopause. For some reason, we, as doctors, have called attention to all the difficult aspects of this period without recognizing that the menopause is a perfectly normal event, and occurs in all women reaching middle age. These women frequently have an increase in sexual drive for which they do not find satisfaction either because they are ashamed to talk about these feelings with their husband, or because they have no source of sexual satisfaction, and this factor alone is responsible for many of the symptoms we see at this time. Recognition and discussion of these problems is worthwhile if the physician feels free to discuss them.

There are certain illnesses which are coming to be recognized as having a definite emotional background and in which the pathology is thought to result from tension over emotional conflicts. Peptic ulcer, asthma, hay fever, eczematous skin diseases, hypertension, some forms of arthritis, Raynaud's disease, and several other entities

have been found to be associated with definite emotional conflicts.

The work of Wolff and Wolf at Cornell Medical Center has revealed that certain alterations in body physiology can be closely correlated with emotional stress. Most of these changes are mediated by the autonomic nervous system and are expressed in the gastro-intestinal tract, the respiratory tract, and the cardio-vascular system. In a patient with a gastric fistula they observed hyperemia, increased secretion of acid, and hypermotility of the stomach when the patient became angry and these changes persisted as long as the inner feelings of anger persisted. The changes cleared rapidly as soon as the anger was expressed or the cause was taken away. In the same patient, when overwhelmed by fear, there was blanching of the mucosa, decreased secretion of acid, decrease in peristaltic activity and vomiting. In a series of observations on the respiratory tract they found hyperemia and congestion of the mucosa and increased secretion of mucus in the nasal passages during periods of anger or resentment and these changes cleared with expression of the anger or removal of the cause. They also describe restriction of movements of the diaphragm causing the sensation of tightness in the chest and an inability to get breath which is associated with feelings of anger and yet inability to cry out and express this anger. The sensations cleared when the individual expressed the anger or when the exciting cause was removed. Hypertension, and constriction of the peripheral blood vessels and reduction in renal blood flow were found to be associated with repressed anger or resentment.

There is another aspect of disease which most of us recognize and this is the real emotional satisfaction which the patient gets from the disease. We all know people who seem to enjoy being sick and are able, while

sick, to dominate and demand from the family, the doctor, the nurses, the minister, and all friends and associates attention, services, and love which they never get when well. Dr. Karl Menninger, in his excellent book, *Man Against Himself*, calls attention to the many ways which man seems to try to destroy himself. We all recognize suicide as a self-destructive act but it is rare that we comment upon the self-destructive aspects of automobile accidents, industrial accidents, alcoholism, neurotic illnesses, and some demands for surgical treatment. Accident proneness is a well recognized entity in industry today, and most industries investigate the psychologic background of workers who have frequent injuries. Many times an injury or a surgical operation for an adult provides the same type of gratification that a small boy receives from exhibiting a cut finger or a bandaged wound or a leg in a cast. Does our responsibility end with the repair of the wound, or treatment of the injury, or sobering of the alcoholic? Many times, calling attention to the fact that they seem to be angry with themselves, or the statement, "You don't seem to like yourself very much," is sufficient to cause them to look at the seriousness of their act.

We know the surgeons are familiar with patients who seem to want to be operated on although there are no clear-cut indications. Frequently these individuals have had several operations—each of which relieved the symptoms for a few months to a few years—but they return with similar symptoms or some other complaints and seek further operative relief. These individuals seem to be addicted to surgery in very much the same way that some people are addicted to drugs.

We are sure that by this time you all are wondering just what can be done from the emotional standpoint to help these individ-

uals. First of all, let's think of a little episode described by Robert Burns in his unforgettable poem *To a Louse*. As Burns was sitting in church one day he saw a louse playing around on the new bonnet of one of the ladies in the congregation. He described the antics of the louse, the amusement of the rest of the congregation, and the obvious satisfaction of the lady concerned because she was getting so much attention to her new bonnet. Burns also perceived how the feelings of the lady were so out of keeping with the real situation and expressed this in the line "Oh, wad some power the giftie gie us to see ourselves as ithers see us". When our patients come to us they have the feeling, Oh would some power the giftie gie my doctor to see myself as I see me. Each one of us has this desire to know how the people we admire and respect look at us and our accomplishments. When a patient goes to the doctor, however, he usually has more than this; he says, "I have something about me that I don't like and I want to know how you look at it. Do you think it is anything unusual or is it a normal part of life?" It is up to us, as doctors, to take an interest in the whole person and recognize the feelings he must be experiencing in coming to us for help. We are inclined to survey the illness as a mechanical disease and forget that the patients have a real feeling about themselves and about their sickness, and they want us to understand them no matter how bizarre the symptomatology may be.

All of this present day emphasis on emotional reactions and their relationship to our everyday lives poses problems for each one of us which are different from the problems we have in accepting new developments in surgery, or new drugs or new techniques in examination because emotions are problems to us as well as to our patients. We are inclined to pass off emotional problems by saying, "Everyone has worries and

that is their problem, not mine". We do not believe this is so, because we are finding more and more everyday that these are closely related to the development of symptoms and response to treatment in the majority of our patients. We do not mean to imply that emotional problems are more important than the organic pathology or physiologic response to treatment, but do wish to have emotional understanding accepted as a basic essential of the scientific medical approach to diagnosis and treatment of disease. In the past, attempts by psychiatrists to help their medical colleagues in understanding the emotional aspects of disease have fallen flat because we have not been able to express ourselves in a way that made these concepts clear to you. We have talked in a language which we ourselves had difficulty in understanding, but we are coming to realize that the really important points can be made in very simple words.

Practically every person in the world feels at some time or other that he wants a friend or someone to understand him and the trials and vicissitudes of his life. We do not necessarily want someone to tell us what to do about these, but just to listen and give us a chance to get out the feelings we have about ourselves and the way we are living or existing. We know that the other person cannot, as a rule, do anything about it but we just want the satisfaction of knowing that someone is interested in us and our lives. We, as doctors, have accepted this role of understanding human ills.

In approaching the understanding and treatment of our patients' illnesses we can supplement our clinical and laboratory investigations by giving the patient an opportunity to express his feelings about being sick. This does not imply that we have to make a special psychiatric study of each patient, but we do want to know how he feels about himself. The important point is

to show interest in him as a person and let him have the feeling that you want to understand and do accept his fears, resentments, loves, hates, ambitions, and discouragements. There will be occasional patients in whom the problems are so complex that you feel that they need special psychiatric help, but you will usually find that if you merely listen and give understanding and emotional support with an honest and open discussion of the situation as you see it, the patient will be able to go out and handle his own problems without any outside direction or advice. It is most important that he feels that someone is really interested in him. Many writers have referred to the traumatic experiences of early childhood as having an effect in bringing about emotional disturbances in later life and this is clearly shown to be the case in many instances, but it is not usually necessary or indicated for the doctor to go into these aspects of the individual's life except as the patient brings them up in his own words. The most important problems for every individual are those brought out by his daily contacts with his fellow man and if these are rooted in past experience he will feel better about having the opportunity to bring them up himself instead of having you or anyone else dig into them. We must repeat again that we have an important function in trying to understand the individual's feelings about himself and his illness as well as to diagnose and treat the physical disease present. It is a good rule of thumb at the conclusion of an interview to sit back for a moment and consider, "Do I know anything about this man as a person? Do I understand why he has come to me at this time for help?" As we become more proficient in such an approach we will find that we understand more of our patients' ills and are better qualified to prescribe treatment for them.

DISCUSSION OF PAPER BY DR. GRAVES; AND PAPER BY DR. CHALMERS AND WOOLLEY

DR. CORBETT H. THIGPEN (Augusta): I feel indeed honored to be called upon to discuss these papers. Dr. Graves has selected a very interesting topic which I feel should have been called to our attention more frequently in the past. I have little or no criticism to offer on that paper, but rather a few enlargements.

Although the clinical forms of epilepsy are generally rather easily differentiated, sometimes the differential diagnosis between petit mal and psychomotor epilepsy is perplexing. I feel that the ultimate and best means of diagnosing or differentiating any form of epilepsy is by the use of an electroencephalogram. Dr. Graves has mentioned that it is not entirely foolproof, and I must agree with him on that. However, if it does show up in an electroencephalogram, that is a pretty good indication. If you use the electroencephalogram, a good neurologic and careful history, a spinal tap, and psychologic examination, such as the Rorschach, you can pretty well diagnose epilepsy, but not in all cases.

I feel it is well to use the electroencephalogram because it establishes a neurophysiologic principle upon which to prescribe for the seizures. The 2 to 3 per second spike in waves of petit mal needs a drug to speed up the metabolic processes. Probably most of you have noticed that during the winter people with petit mal have less seizures. I think it has been well brought out that this is probably due to the great American habit of drinking coffee. The caffeine in the coffee tends to speed up these waves.

The fast component wave in grand mal, however, requires a drug to slow down the metabolism. Dr. Graves called attention to the new drug, phenurome. This drug seems to offer a great deal in the treatment of psychomotor seizure in particular. It is an experimental drug and is not yet on the market.

The most important side action of this drug, however, is exaggeration of preexisting personality disturbances that often are the accompaniment of psychomotor epilepsy. Other side actions are insomnia, weakness and anorexia. If you give some of the Vitamin B complex, that generally clears up the anorexia.

I regret to report that so far, at the University of Georgia, we have found tridione of little or no use in any form of epilepsy, and the danger of toxic action far outweighs whatever good it is to the epileptic patient.

I was greatly stimulated by Dr. Chalmers' paper. So often the practicing physician, the general practitioner, the surgeon, the gynecologist, is thrown completely off by psychiatric terminology. We have difficulty in understanding ourselves. So often a doctor will send a patient to a psychiatrist and will get back a report saying that the man reads, and has no idea of what the psychiatrist means at all. That is a deplorable situation.

Dr. Chalmers, I think, has brought to us better than any paper I have ever read the practical, down-to-earth value in psychiatry. I have talked to many general practitioners who have come to the University, and I have asked them about what percentage of the patients come to their office with emotional bases for their problems. I had one gentleman around 75 years of age who replied, "Doctor, about 75 per cent." He didn't mean that all the cases coming to his office had only emotional problems—he meant that 75 per cent of them had an emotional basis.

I believe firmly that not more than 1 or 2 per cent of psychiatric problems should come to a psychiatrist. Most of you can treat these things yourselves. As Dr. Chalmers has brought out, you can do it mainly by listening and trying to understand the patient. That is what determines a good psychiatrist. It is nothing in the world but just plain common sense. There is no need of counseling in language that few people can understand. I hope that soon we will be able to establish things so that we can all understand each other.

FRACTURE PROBLEMS OF THE LOWER EXTREMITY

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Fractures have not received as much attention as they deserve. This is particularly true in fractures of the lower extremity where so much depends on preserving the alignment and length of the bones and protecting joint motion. Shortening of one leg can cause the patient permanent disability and bring about a painful back which becomes more distressing as the age increases. A very high per cent of fractures in the lower extremity result in total or partial disability to the extent that the patient is forever thrown out of work in the vocation in which he is trained. Changes of vocation may be difficult to adjust especially in the case where a complete change over is necessary. In face of loss of earning power while dependents are to be cared for makes adjustments difficult or impossible in many instances. Often a well adjusted family is thrown into dire straits by the bread winner receiving a compound fracture followed by a long period of osteomyelitis, non-union, or other complications. If this individual loses his home, sees his family deprived of the necessities and then has to train for a new vocation, is it any wonder that he becomes a convert to socialized medicine.

The old adage that nature is a good doctor has been badly overworked and it is fitting that the very best anatomical restoration should be our present and future aim, leaving as little as possible for nature to shoulder for us in the treatment of the patient. A surgeon should be willing to seek early consultation if there is any doubt as to the treatment. Late consultations when

the patient or his family request same are usually not as satisfactory and are often embarrassing to the family doctor when he requests consultation, especially if he asks for it after difficult or irreversible complications have developed.

I shall discuss fractures of the foot and ascend the limb rather than the reverse as I feel that pelvis and hip conditions have had much more attention in the literature.

Toes. Fractures of the toes seldom cause serious disabilities and are often not diagnosed. Many patients go along for 2 or 3 weeks with a fractured toe before they get worried because it still causes pain. On making x-rays the fracture shows a generous callus and needs little or no treatment except a comfortable shoe to act as a splint or brace.

Metatarsals. Fractures in the metatarsal region rarely give rise to serious complications and are easily treated in a small plaster boot. However, an occasional case of a fracture in the metacarpal region can give rise to severe displacement, comminution, or overriding, making reduction very difficult. In some instances open reductions with or without internal fixation or external traction are necessary.

Compound fractures in this region can give rise to the necessity of good operating room debridement and repair. In some instances skin grafts may be indicated in the covering of the exposed tendons and bones if future function is to be preserved. In every case of compound fracture the anaerobic mixed gas-gangrene and tetanus antitoxin should be administered after skin testing. Penicillin should be given intramuscularly for several days or until all danger of infection is passed. Sulfa drugs may be given by mouth.

Mid-Tarsal. Fractures through the cuneiform bones, the scaphoid or astragulus may be reduced satisfactorily in most cases and

seldom give rise to serious disabilities, if the arch of the foot is restored and protected with a plaster cast until healing is secured. Failure to preserve the arch results in painful flat foot and fore foot eversion, valgus ankle joint and extremely disabling result. If this disability is not corrected early by manipulation under anesthesia and cast applied to hold the correction until healing can take place, serious disability results. Late correction of painful flat feet may require surgical intervention in some form of flat foot stabilization operation.

Astragulus. Fracture through the head or neck of the astragulus can usually be corrected by conservative manipulation and held with a plaster cast until they unite.

Fracture of the proximal end of the neck of the astragulus near the body or fracture in the body of the astragulus may be easily reduced in most instances. Occasionally open reduction may have to be resorted to in order to correctly reduce the fracture. In a rather large per cent of these fractures there will be delayed union and in a smaller number aseptic necrosis of one fragment may take place. The fracture tends to damage the blood supply and interfere with the bony union, making a bone graft necessary.

Oscalcis. Fracture of the oscalcis may occur in varying degrees of severity and amount of comminution and displacement. Many of the fractures can be treated conservatively, especially if there is no disturbance of the subastragular joint. There are too many methods to attempt to go into them in this brief discussion; suffice to say that none of them will be successful if there is much disturbance of the articular surface of the subastragular joint.

About three years ago my associate, Dr. Walker Jernigan, began performing early open reductions on some of these subastrag-

ular fractures in an effort to forestall doing subastragular arthrodesis as a late procedure. He found that in most cases the harder astragulus penetrated the body of the oscalcis carrying the cartilage and a plug of bone ahead of it, splitting the oscalcis. The depressed bone, while remaining in the body of the oscalcis, prevented reduction by manipulation or compression by Bohler clamp. On opening the field through a lateral incision the impacted fragment is raised to its proper level, after which the laterally displaced fragments can be pressed together with the hands. The fragments are held in place by plaster cast or casts until x-ray shows the fracture to be united.

External Malleolus or Fibula Tip. In fractures of the lower end of the fibula little or no difficulty is encountered in reducing same to its proper position unless accompanied by some complicating factor. Open reductions are rarely found necessary.

Fractures of the Internal Malleolus. Fractures of the internal malleolus of the tibia usually cause little or no difficulty in reducing. Occasionally fascia or periosteum may get in between the fragments and prevent proper reduction. In this type the best treatment is to do an open reduction, replace the malleolus. If there is a tendency to displacement a bone screw is inserted through the malleolns to penetrate well into the cancellous bone or preferably penetrate the opposite cortex for better stability. A cast is applied to hold the reduction.

Fractures of the Anterior Lip of the Lower Articular Surface. The anterior lip or margin of the lower tibial articulation is seldom fractured. In this type of fracture the loose fragment is reduced in most instances by dorsi-flexing the foot, pushing fragment back into position. A plaster cast is necessary until healing is sufficient to prevent further tendency to displacement.

Fractures of the Posterior Lip of the Tibial Articulation. Fractures of the posterior lip may be rather small in backward subluxations. If complete dislocation does not take place and if fragment involves less than $\frac{1}{3}$ of the total inverted arc of the lower tibial articulation, little or no disability will be expected if the malleoli are in good position and held in cast.

Post-Lip Fractures With 40 Per Cent or More of the Articular Surface. In posterior dislocations of the ankle it is rare that the posterior lip of the tibial articular cartilage and bone are not torn away. This condition is not always but usually accompanied by fracture of both malleoli and described by Dr. Cotton as the trimolar fracture and bears the name of Cotton's fracture of the ankle.

The treatment consists of giving a relaxing general anesthetic and reducing the posterior dislocation of the ankle and aligning the fractured internal and external malleoli. In a very small per cent of these fractures the posterior lip will be replaced and can be treated in a plaster cast. However, it should be x-rayed frequently to see that the joint surface is satisfactory.

In a rather high percentage of the Cotton fractures the posterior lip of the tibia does not reduce 100 per cent and will displace easily. In this condition a very unsatisfactory result will be encountered. If there is the slightest unevenness of this joint surface there will be mechanical arthritis and permanent disability to a severe degree. The unevenness of as much as a sixteenth of an inch will spell complete failure in this weight bearing joint. The ankle should be prepared for open reduction through a posterior incision. The incision should be a perpendicular one about 4 inches in length, beginning just behind the internal malleolus and extending upward. The wound is carefully opened and every precaution taken

not to injure the posterior tibial nerves or blood vessels. The bone is exposed with the patient lying on his face and the ankle resting on a large sand bag to prevent weight from pressing on the toes. The ankle is now reduced by flexing the knee and manually reducing the dislocation. An assistant holds the leg in reduction while resting on the sand bag; the wound is opened and the fracture in the posterior surface of the tibia is examined. The loose fragment is fitted back into position and all margins are carefully checked for perfect reduction. When reduction is satisfactory, one or preferably two bone screws are inserted into holes drilled through the fragment and bone to the opposite cortex but no more than to be felt as a slight nodule. Before closing the wound the patient is turned to one side and an x-ray plate in a sterile cover is slipped under the ankle and a lateral view x-ray is made. The wound is closed but not contaminated until x-ray is checked for results. If 100 per cent perfect, dressings are applied and a cast is wrapped on leg and thigh.

If the x-ray did not show perfect reduction the necessary adjustments are instituted and rechecked by x-ray before closing the wound.

Expanded Lower Extremity of Tibia. Fractures through the lower expanded portion of the tibia are usually very easily reduced, easy to hold in position and easy to get union because of the excellent blood supply in this cancellous type bone.

Fractures of the Lower $\frac{1}{3}$ of Shaft. Fractures of the lower $\frac{1}{3}$ of the shaft may be either of 3 types: (1) The transverse or serrated which may be reduced and will probably remain in good position in a properly fitted cast; (2) The second is the sloping or spiral type which may stay in satisfactory position in cast, and (3) The sloping or oblique type or the comminuted

which require traction to keep up the length and alignment. The traction may be applied through a Steinmann pin or a Kirschner wire through the oscalcis or the lower end of the tibia.

Fractures of the Middle and Upper $\frac{1}{3}$. Fractures of the middle and upper $\frac{1}{3}$'s can be handled in about the same manner as those described in the lower $\frac{1}{3}$ with possibly slight variations. Due to the density of the tibial cortex union is slow and many of these fractures result in non-union and require a bone graft.

Open Reduction. In fractures of the tibia where displacement is not controllable, open reduction and bone plating is a very satisfactory method provided the slotted plate is used in preference to the old conventional type plate with screw holes. The conventional type plate held the bones apart, as the bone ends absorbed during healing. This lack of bony contact resulted in non-union. The slotted plates in our practice and at Grady Hospital have resulted in union in almost all cases, in fact, I have only recently heard of one case of non-union where the slotted type plate was used on a fresh fracture. It is a mistake to use any form of bone plate in ununited fractures and expect union unless a bone graft or bone chips are used to stimulate new bone production. The tibial graft has been highly successful but often cancellous bone from the ilium may be preferable.

Compound Fractures of Tibia. The treatment of compound fractures of shaft tibia depend on several factors: (1) Small puncture wounds can be thoroughly cleansed and wound margins trimmed of any devitalized skin and the wound closed without traction with well spaced interrupted sutures. Sterile vaseline gauze over wound and sterile dressings are applied and the fracture treated as a simple fracture, except for the anaerobic vaccines, penicillin in large doses and sulfa

drugs if one thinks advisable; (2) The more extensive wound is treated by shaving thoroughly, cleansing the surrounding field while protecting the wound with a pected of sterile gauze. After this, the wound is thoroughly washed and then irrigated thoroughly using a glass tip inserted to bottom of wound and flushing all blood clots and debris out of wound. All bleeders are controlled, reirrigated and then all devitalized tissue, skin, and subcutaneous tissue are cut away. Extreme care should be used to sacrifice no more skin than is absolutely necessary. All small loose spicules of bone are removed. Caution: do not remove any large fragments or pieces of bone to which sufficient soft tissue is attached to supply blood to nourish the fragment. Every possible or doubtful piece should be left in situ to prevent non-union by separation of the fragments. In my opinion no foreign metal plates, screws, etc. should be inserted into the compound fractures. I say this, not based on much experience in putting these materials into the wounds but from a very extensive experience in removing these foreign bodies and treating the osteomyelitis which is present. The osteomyelitis treatment is made much worse by the presence of bone plate screw holes or holes placed for the introduction of wire sutures. These holes have to be removed in toto even at the expense of removing the ends of the bones back past the screw holes, leaving large gaps between the bone ends. This makes subsequent bone grafts more extensive but is often absolutely necessary to cure the osteomyelitis. At this point I especially wish to caution against encircling wires and Parham bands around fragments as they are almost certain to interfere with circulation and have to be removed. After a thorough debridement of a compound fracture of the tibia it may be possible to bring the skin together, with vaseline gauze and sterile dressings and a plaster cast applied. If

after the debriding the compound fracture it is not possible to close the wound due to swelling, a row of sutures can be placed but left untied and the wound covered with sterile vaseline gauze and the dressing applied and splint or cast used until such time as swelling subsides enough to draw the wound edges together. The time elapsed should not be less than 24 hours and should not exceed a very few days. Under sterile operating room technic, the wound can be exposed. The sutures are tied after bringing the wound edges together. The wound is redressed and fracture treated as indications direct. Other methods to cover the exposed bone fragments are to make one or two parallel incisions and undermine the skin to permit closure of the wound edges at time of primary reduction. Another method is to swing a pedicle graft to cover the tibial wound and cover the donor site with vaseline gauze to granulate or preferably with split skin graft taken with the dermatope. If any additional traction or fixation is needed other than a plaster cast, I would prefer Steinmann pin above and below the fracture and apply cast incorporating both pins. These pins will result in non-union if not removed within 3 or 4 weeks. If this is not advisable traction should be applied to the lower fragment or to the oscalcis by a Steinmann pin or Kirschner wire and stirrup, while leg and thigh are supported in a Thomas splint. Sulfa drugs in a wound have been in much favor but are now in disrepute. My own observation has been that it tends to keep the blood from clotting and forming hematomas during the first 24 to 48 hours, permitting the blood to drain out through incision between sutures or through the drainage tube if one has been provided. Sulfanilamide crystals have been most satisfactory, powders to a lesser extent and never sulfathiazole due to its low solubility and tendency to cake. Sulfa should be lightly salted into wound rather than be

used more extensively. Hematomas in wounds furnish the necessary culture media for bacterial growth and favor infection of compound wounds.

Upper 1/3 of Tibia. Fractures of the expanded upper end of the tibia which do not involve the articular surface are of little worry in that they are usually easy to set and can be held by a plaster cast from the toes to the groin. This cast is especially satisfactory if the knee is slightly flexed and the cast is well moulded about the condyles and patella while the cast is setting.

Fractures involving the plateau of the internal or the more frequent external tibial tuberosity in the so called bumper fracture call for special attention and are of three main types. A. The simple depression of all or a part of the tibial tuberosity by the femoral condyle. The treatment is to straighten the leg so that the tibial condyle is raised to its normal position and is held there by keeping that side of the knee under tension in a plaster cast. B. There is another group of the same type which will not or only partly reduce making it necessary to operate and raise the condyle to its proper level and insert bone screws. Kirschner wires, pins, or other fixation agents inserted through the fragment into the main portion of the bone to keep the fragment in place. Through and through bolts are sometimes used for fixation or compression of separated condyles. There is a third group in which the condyles of the femur makes an excursion down into the plateau of the tibial condyle leaving a rim of un-impacted bone around the central depression. In this type all attempts at reduction are futile and open reduction is absolutely necessary if the patient is ever to walk satisfactorily. The knee is prepared for open reduction at a favorable time when good operating room facilities and assistants are available. Make a generous perpendicular incision on the anterolateral surface of the knee for the

external condyle exposure. The incision starts about one inch above the external semi-lunar cartilage and extends down the leg anterior to the nerve as it swings around the upper end of the fibula. In an attempt to look into the knee one is prevented by the presence of the usually torn external semi-lunar cartilage. Whether the cartilage is torn or not it is dissected out to give a view into the joint, exposing a large crater like depression of a portion of the articular surface of the tibia. The view is the same as if you approached a place where a section of a tiled side-walk had become undermined by a wash out and the cavity was three or four feet deep with the large tiles lying in the bottom of the depression. To repair the sidewalk, the tiles would be taken out and preserved for repaving purposes. Fresh dirt would be packed in the hole and tiles fitted in place to reform the walkway. In the knee a window or slot is cut in the side to permit a chisel or some other instrument to be inserted under the fragments of cartilage and bone and remove them piece by piece until all fragments are recovered and saved. Through another window at a lower level on the tibia bone blocks or sufficient cancellous bone is secured to pack in the crater of the tibial plateau to fill the cavity almost full. The retrieved fragments of articular cartilage are fitted back to form a curved surface to correspond to the under surface of the femur. From this point on it is most important not to allow the femur to press down on the outer tuberosity. An assistant holds the ankle with one hand and presses against the inner side of the knee while the surgeon closes the wound and applies the dressings. Immediately the patient is turned to the side of the injured leg so that the wound will be pointing down toward the floor. This creates distraction on the injured side preventing reimpaction while a long cast from toes to groin is applied. It is important to keep up the treatment, cast

or casts until bony union has occurred, probably 9-11 weeks. Before the time for removal of cast a brace has been made by taking measurements from the opposite leg and allowing a little for swelling. The plaster is removed, leg cleansed, and brace applied immediately. This brace should not only extend from a half Thomas ring but should have a ring lock knee joint first for temporary fixation and later free motion of the knee and ankle. A special feature of the brace is a knee pad against the inner side of the knee to prevent the knee from any knock knee deformity which would tend to compress the outer tuberosity of the tibia.

We have no objection to the patient returning to almost any vocation as soon as the brace is applied. Many discard the brace months after returning to work.

Tibial Spine. Fractures involving the spines of the tibia may be produced by stress of the cruciate ligaments either in dislocation of the knee or severe subluxation of the knee at the time of the injury. The knee is locked in flexion deformity or will flex but not extend more than 170 degrees before locking. The x-rays show a spine detached and riding upward and forward as a rule.

The reduction of this fracture is necessarily one of open incision and exploration of the lower portion of the joint. The cartilages are inspected and if one is damaged it is removed. I have never seen a case in which both semilunar cartilages were torn in the same knee. The spine is pulled down and fitted into its former position. It will not stay on account of the tension of the cruciate ligament drawing it up out of position. A mattress stainless steel wire suture through the tendon above the spine is inserted. From the anterior surface of the tibia about $\frac{3}{4}$ inches below the crest or plateau, a drill is driven upward and backward so as to enter the knee joint plateau on one side of the replaced tibial spine.

Another drill is driven in parallel to the first at about $\frac{5}{8}$ to $\frac{3}{4}$ inch distance and entering the joint on the opposite side of the tibial spine. A wire is carried along the course of one of the drill holes into the knee and brought out and threaded into a full curve needle and passed through the cruciate ligament just above the replaced spine. After removing the needle the end of the wire is inserted into the eye of a ligature carrier which has been inserted through the other drill hole and withdrawn. The wire mattress ends are cut about $\frac{1}{2}$ inch long and buried in a drill hole, leaving a smooth surface.

Patella. In fractures of the patella it is our policy to conserve the large fragments. We use two encircling stainless steel ligatures around the fragments. We do not agree that the patella should be excised as this appears entirely too radical and produces some unsatisfactory changes in the appearance of the knee. A plaster splint is applied immediately and is worn for two or three days and then discarded. However, motion of the knee without actually putting strain on it is encouraged from the beginning. To prevent injuries from sudden strain we have the patient fitted with a long leg brace which has a ring lock knee and free motion ankle. During the first few weeks the patient is permitted to unlock the brace at any time except while weight bearing. After the first few weeks the patient is encouraged to unlock the brace even while walking. Patients treated in this manner should have practically normal function.

Intercondylar fractures of the lower end of the femur can produce serious complications, especially when the condyles tend to separate and one becomes displaced upward, leaving the articular surfaces uneven. These fractures are entitled to a try at conservative reductions by closed methods of any kind that will reduce and hold the frag-

ments in good position. However, in a large majority of the cases I see it necessary to do an open reduction and pin, screw or bolt the fragments together before good results can be obtained. Flexion of a few degrees in cast makes the patient more comfortable and facilitates keeping the fragments in position. Due to the leverage at this point circular plaster casts are almost a necessity for retension purposes. Supracondylar fractures of the femur may look bad but usually respond well to manipulation under a complete general anesthetic, especially if the knee is flexed to about 90 degrees to relax the gastrocnemius heads and the hamstring tendons on either side. Sometimes additional flexion beyond 90 degrees—carrying the knee into complete flexion will assist in a reduction of this supracondylar fracture. If the fragments are oblique with no notches or spicules it may be necessary to apply some type of fixation externally or internally to hold the fragments in apposition.

Fractures of the lower $\frac{1}{3}$ of the shaft tend to assume a typical position of overriding with proximal end of the distal fragment pointing backward and inward due to the traction of the two heads of the gastrocnemius muscle pulling backward on the lower fragment. The conservative treatment depends on shape of the ends of the bone.

1. If the fragments are irregular or notched it may be possible to reduce and hold with a plaster spica cast to prevent angulation while the muscle contraction prevents distraction necessary to disengage the fragments. This type must be closely watched by repeated x-rays to check on possible displacement and overriding. These displacements have been the cause of many disappointing results and some law-suits. Fracture with one sharp point which may be inserted into the marrow canal of the other fragment offers the best type for closed

reduction with the least danger of displacement. However, even in this type the pointed fragment may break off or a piece of the cortex may give way from the socket side allowing the point to displace laterally, resulting in mal position of the fragments. Checking fractures with x-ray is necessary if disappointments are to be avoided. Comminuted or oblique fractures require traction to maintain length and alignment, whether the surgeon uses balanced traction and suspension or the Balkan or modified types, Russell type or other forms of traction depending on the individual surgeon's training.

Open reductions and bone plating may be indicated in certain cases. The Eggers contact or slotted plates can be put on in the usual manner and then loosen the screws one turn on each of the screws in one end of the plate, which will allow the bones to keep contact as absorption takes place. We prefer to delay the open reduction for one or two days and treat the patient in a Thomas splint, while waiting for a long leg brace, which can be made to the patient's measurements and attached to his shoe. The bone plate is applied and as soon as the wound is closed and covered with a dressing the brace is applied on the operating table instead of a plaster spica. The brace has a pelvic band, half Thomas ring around back of glutial fold, the band is completed in front by a leather strap; the thigh is encased in a long leather cuff and same with lower leg. There is motion at the hip, ring lock knee joint to lock the knee in extension until flexion is permitted and then free motion of the knee. The brace allows free motion at ankle and is attached to a high top shoe. The patient can be up in a rolling chair the following day and may very well walk out the hospital on crutches on the 10th or 12th day after fracturing his femur.

Compound fractures of the femur are

usually due to one of the fragments being driven out through the soft tissues and skin. In very few instances do the patients reach the hospital with the fragments still protruding from the wound. Many surgeons advocate opening and exploring practically every one of these puncture wounds. Personally, if the point of exit is small I clean it up and apply sterile dressing and treat as any simple fracture, except for the anaerobic antitoxins and the antibiotics. If the wound is large it is debrided of all devitalized tissue and the wound is closed with interrupted sutures. I rarely ever expose the fracture ends because of the additional shock, surgery and more trauma produced, knowing that I can never sterilize these bone ends by cleaning agents, and that nature must take care of some bacteria at best. Further we know that physiologic rest is one of nature's greatest aids in taking care of massive trauma. Therefore I resort to one or probably more ampules or anaerobic vaccine mixed (tetanus-gas gangrene combined), large doses of penicillin and possibly sulfa drugs if well tolerated. It is a rare thing for us to see any infection in a compound femoral wound when treated in this manner.

Fractures of the middle and lower part of the upper $\frac{1}{3}$ differ very little from those of the lower $\frac{1}{3}$ and are handled in about the same manner with some slight variations.

Fractures of the subtrochanteric region are usually typical so far as displacement. The distal end of the upper fragment angulates forward and outward with some external rotation, due to the action of the hip muscles.

The proximal end of the distal fragment is displaced toward the mid line and drops backward toward the bed when lying on back. It is impossible to control the upper fragment. Therefore in order to reduce this

fracture one must put the distal fragment out in front of the proximal fragment. The subtrochanteric fractures may be handled by open reduction. The fragments are reduced and held by bone forceps or with addition of Parham bands, until the fragments and splits can be fitted together. A Smith-Peterson nail is placed in the neck of the femur and a long Thornton type plate is attached to the Smith-Peterson nail and extends down the lateral surface of the femur sufficiently to incorporate all fragments and secure the distal fragment. Holes are drilled and the plate is firmly attached by screws. There are many other types of nail and plate combinations both solid and detachable from the Smith-Peterson nail which can be used but we prefer the Thornton's plate and find it highly satisfactory.

Intertrochanteric fractures can with few exceptions be handled with a Smith-Peterson nail and the attached bone plates. Parham bands are often of help in this type fracture but even here must be removed if any evidence of irritation is noted.

Fractures of the neck of the femur are best treated by reducing the fracture with traction and internal rotation of about 15 degrees. We insert guide pins and make anterior-posterior and lateral views to check their position. When guide pins are in proper position we pass a cannulated cutter down on the guide pin and cut $\frac{1}{2}$ inch hole in the cortex. We next place a nail of proper length on the inserter and drive it into the desired depth. We next repeat the procedure by driving in another nail on the second guide pin. One nail is put in along the superior and one along the inferior portion of the neck of the femur. About $2\frac{1}{2}$ years ago I adopted the use of two instead of one nail to better fill the neck of the femur and prevent rotation or movement of the head on the neck. The results have been better in so far as holding the position, and getting union of the frac-

ture of the neck of the femur but has not increased nor lowered our percentage of aseptic necrosis of the head of the femur.

Fracture-dislocation of the acetabulum region is treated by reducing the dislocated hip under a completely relaxing anesthetic, whether it be a general or spinal type. Any attempt at reduction without complete relaxation is foolhardy and almost certain to result in a failure. Traction methods of pulling in line of lower extremity are seldom successful. The surest method of reduction of a dislocated hip in a robust adult is to place the patient on a folded blanket on the floor before administering the anesthetic. As soon as completely relaxed, the operator removes his shoe and puts the arch of his foot on the patient's anterior superior spine for counter pressure on pelvis while he flexes the dislocated hip and knee to 90 degrees. The operator takes hold of this leg in the popliteal space and applies traction to the flexed thigh in the direction of the ceiling. The head of the femur is drawn upward and into the hip socket. If any resistance is felt as the head comes forward or upward against the posterior rim of the acetabulum the reduction is made more certain by rocking or twisting of the femur as traction is being applied. This rotary rocking has made it possible for me to reduce at least two dislocations in cases where the reductions were made several days after the injury. When muscle spasm, shortening of the muscles from swelling or other complications made the reductions more difficult, this maneuver has been successful.

Many of the fractured posterior rims reduce when the hip reduces, making open operations seldom indicated.

Fractured Femoral Heads. It is frequently seen that a small fragment or fragments of the femoral head take place and fail to reunite and become free bodies in the joint. As a rule these fragments tend to move in a

pouch or recess of the intracapsular space and give little or no trouble and do not require surgical removal. In one instance I have had a large free segment of the head to remain in the socket and interfere with reduction of the hip. In fact the hip was reduced several times but would rest on the fragment in such a way that when the leg was turned loose the head would redislocate. After many futile attempts to keep the hip reduced open exposure of the joint was carried out and the crescent shaped piece of bone consisting of about $\frac{1}{3}$ of the volume of the head of the femur was removed and reduction was stable.

A TECHNIC FOR VAGINAL HYSTERECTOMY WITH ONLY FOUR VASCULAR PEDICLES WITH THE AID OF A SPECIAL CYSTIC DUCT HEMOSTATIC FORCEP

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The uterus may be considered the key stone in a suspended, swinging arch that supports the pelvic diaphragm, and is a part of it. The round, the ovarian, the utero-sacral, and the lateral cervical ligaments, with their accompanying fascias, are the guy ropes that support and control this arch. Thus considered, when the uterus is removed, the necessity is made emphatic for reforming this supporting arch by uniting these ligaments in the midline. From a consideration of the lesions amenable to surgery by the vaginal route and from *an overall consideration* of the damaged pelvic floor, an operation has been adopted that consists of an anterior colporrhaphy, a vaginal hysterectomy, and a perineorrhaphy. The combined three procedures are

necessary to prevent the development of late, disabling sequelae that might require re-operation years later. What follows is a step by step description of how this is accomplished by the aid of a special cystic duct hemostatic forceps with only four vascular pedicles.

With the patient in the lithotomy position and a weighted speculum in the vagina, the anterior lip of the cervix is grasped with a traction forceps and is pulled down. The anterior vaginal wall is incised in the mid-line from the cervix to the lower edge of the cystocele. The vaginal wall is separated from the bladder, and the bladder is separated from the cervix and the uterus anteriorly, and then a taped pack is placed under the bladder. A catheter is passed and the bladder is emptied. An additional traction forcep now grasps the posterior lip of the cervix and a traverse, posterior colpotomy is done at the vagino-cervical junction and between the utero-sacral ligaments. Then a taped pack is placed in the culdesac. At this stage the uterus has been freed anteriorly and posteriorly and remains at-

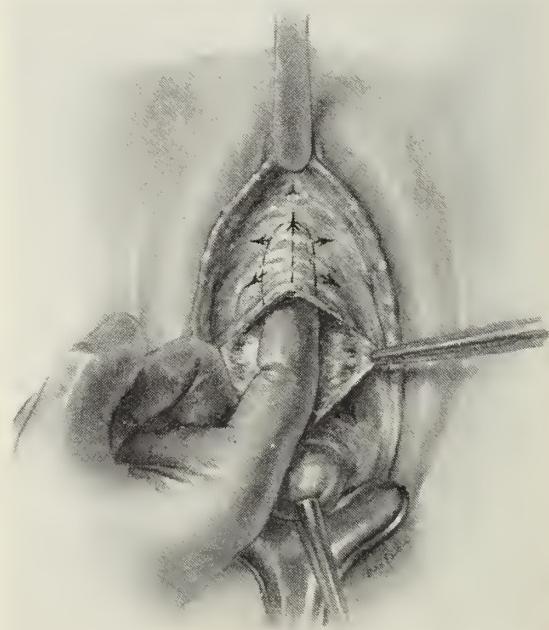


Figure 1. Incision and separation of the vaginal wall from the bladder.

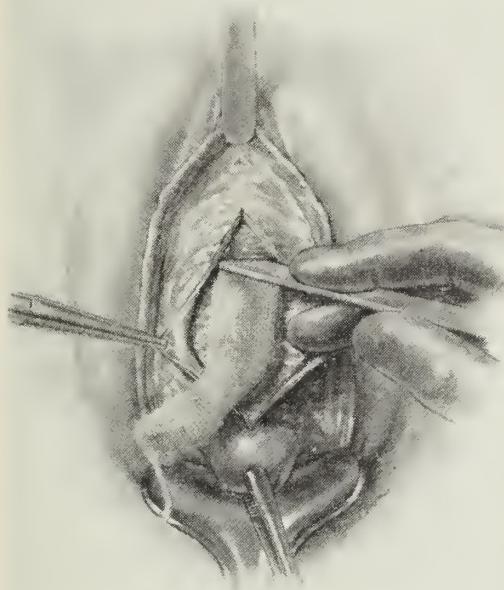


Figure 2. The bladder has been separated from the cervix and uterus and a pack placed under the bladder.

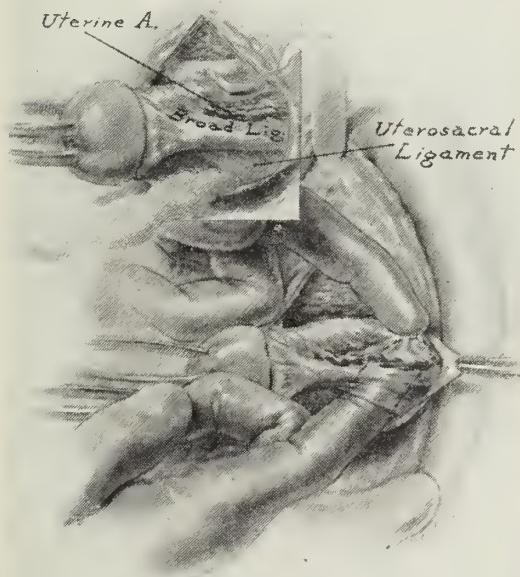


Figure 3. (a) The posterior culdesac has been opened and a pack inserted. The vaginal wall lateral to the cervix has been incised and pushed well away. (b) The pack under the bladder has been removed and the thin avascular area of the broad ligament is being palpated with the index finger.

tached only bilaterally. Next, the vaginal wall lateral to the cervix on one side is incised and is pushed well away, exposing the lower broad ligament which contains

the uterine artery. The pack under the bladder is removed and the broad ligament is palpated with the index fingers, one anterior and the other posterior. When the thin avascular area is located, the posterior finger is removed and the special clamp is inserted in its place and pierces the broad ligament close to the uterus against the end of the index finger anteriorly. The clamp is opened widely and the end of the finger drops between the blades of the forceps and follows back through the broad ligament. The finger now holds down the broad ligament, and the utero-sacral ligament, and one blade of the forceps is passed back through on the finger and the instrument is closed.

Contained in this clamp now is the lateral cervical ligament with the uterine artery anterior, and the utero-sacral ligament posterior. This segment is cut free of the uterus and ligated, and the ligature is tagged with a hemostat. Ligation of this pedicle is safely and securely done by first transfixing and ligating above the clamp, the anterior border that contains the artery. Then the suture is carried through the pedicle over and over the clamp to the lower border, the clamp is removed, the suture is pulled up tight and the two ends are tied together. The lower segment of the broad ligament on the other side is treated in like manner. Now a pull on the cervix brings the uterus down and almost out, and with the index finger hooked over the horn the round ligament, the ovarian ligament, and the tube are bunched together on each side where they are clamped close to the uterus and cut, which removes the uterus. Each mesosalpinx is now ligated, and the tube is excised. Then the pedicle is transfixed and ligated, and is tagged with a hemostat.

The uterus having been removed, the four pedicles, the cystocele and the vaginal incision are treated as follows: The upper pedicles are brought together in the midline

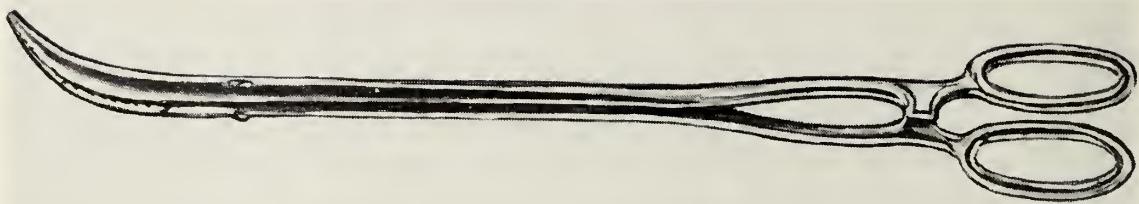


Figure 4a. A large, heavy, nine inch, cystic duct forcep.

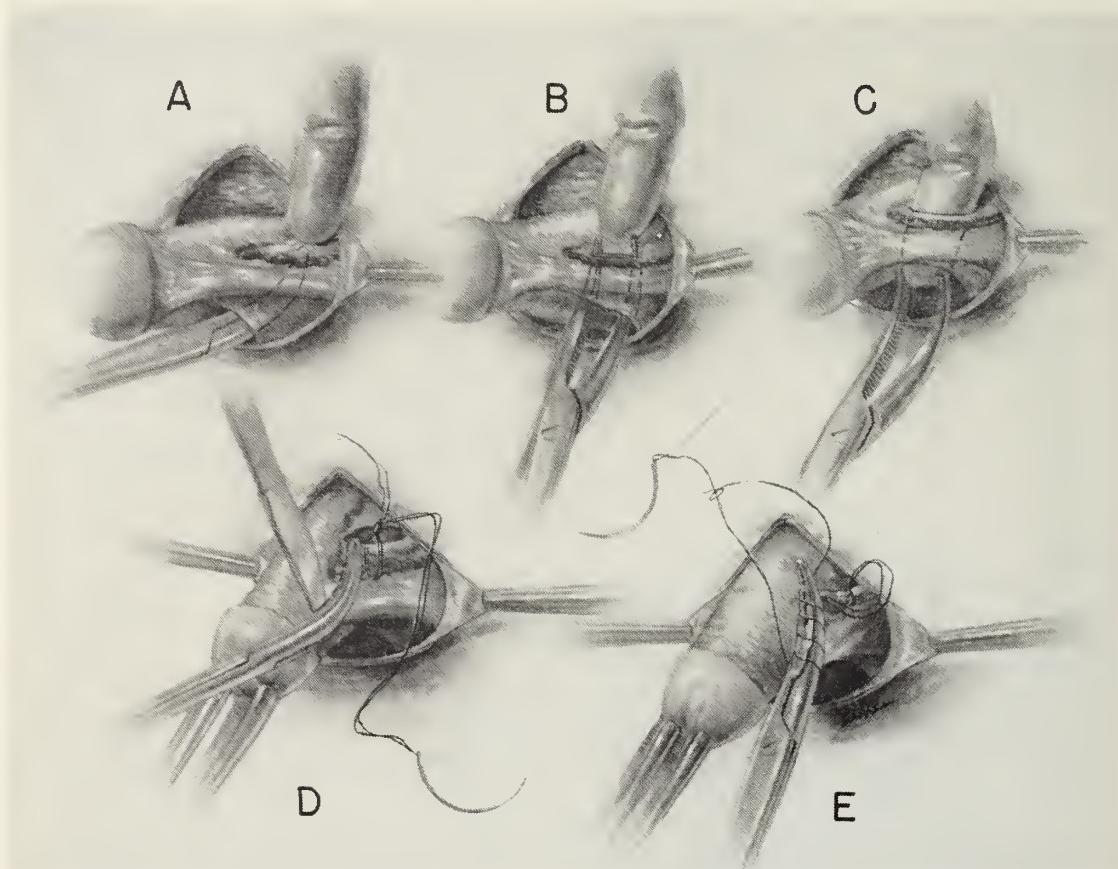


Figure 4b. (a) The special forceps replaces the posterior finger. (b) The forceps pierce the broad ligament against the end of the finger anteriorly. (c) The forceps is opened widely and the end of the index finger follows it through the broad ligament. (d) One blade of the forcep passes back through the broad ligament on the finger and the instrument is closed. The pedicle is cut free of the uterus and a ligature encircles and ties the uterine vessels. (e) The ligature then sutures over and over the clamp which is removed and the suture pulled up tight and both ends are tied together.

by a figure of eight suture and tied; and each end of the ligature is rethreaded and brought out under the urethra through the vaginal wall on each side respectively, and is clamped and left untied. Similarly, the upper border of the lower pedicles are brought together in the midline with a figure of eight suture and tied, and each end of the suture is rethreaded and brought out through the vaginal wall on each side just above the sutures from the first pedicle. At

this stage the first suture is tied and cut and the second suture is tied and is used as a tractor till the next stitch is put in when it is cut, and so on till the defect in the vaginal wall is sutured in the midline clear back to the culdesac area. Each of these sutures is passed through the vaginal wall, takes a bite in the broad ligament pedicle and then out through the vaginal wall on the other side of the incision. The sutures further back grasp the edge of the utero-sacral liga-

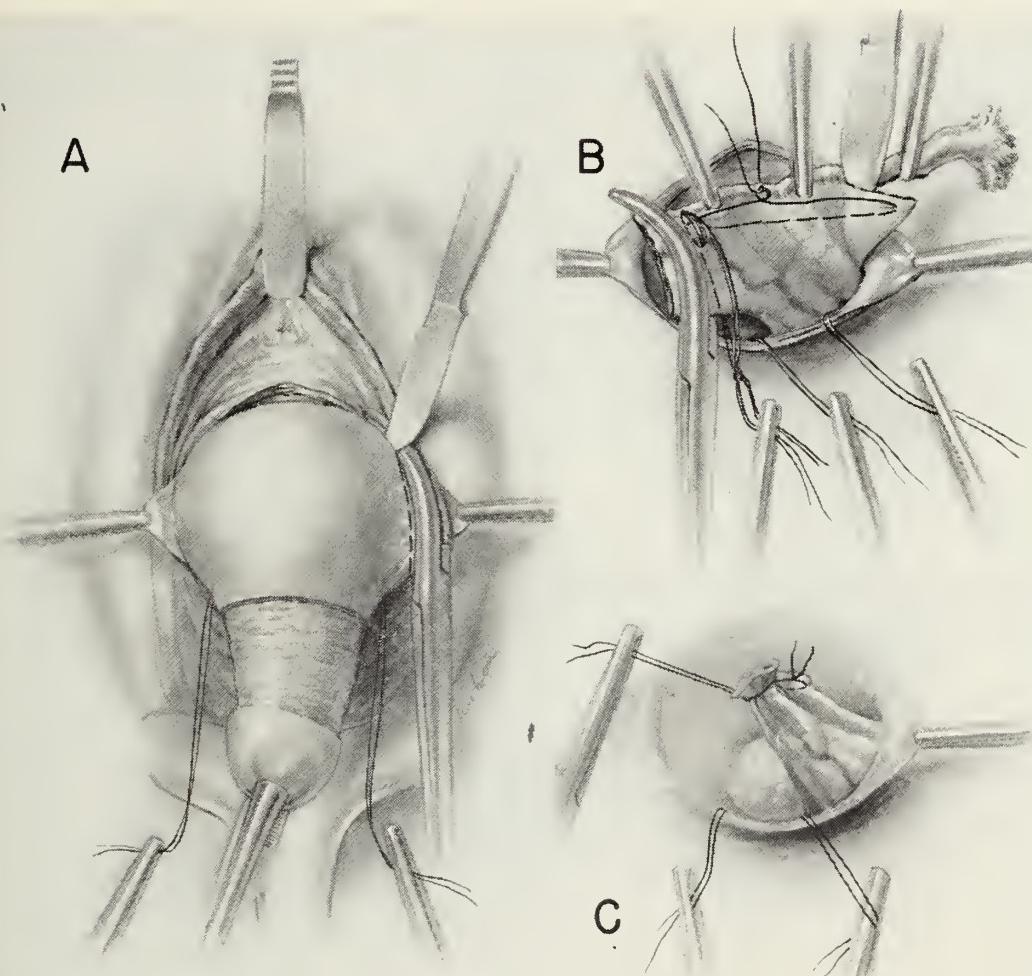


Figure 5. (a) The round and ovarian ligaments are clamped and cut on each side. (b) The mesosalpinx is ligated and the tube excised. (c) The pedicle is transfixed and ligated.

ment. Finally, the pack is removed and an iodoform gauze drain is put in the culdesac.

A perineorrhaphy is now done exactly as described by Byron H. Goff in *Surgery, Gynecology and Obstetrics* for June 1928. His technic is generally applicable, it is exact, and it gives perfect anatomical visualization throughout. This done, the anus is inspected and often receives a gentle, careful dilatation.

To avoid injury to the bladder and to facilitate a wide separation of the vaginal wall from the bladder, it is important to obtain a clear cut, accurate entrance into the natural cleavage plane that separates the vagina and the bladder. This is accom-

plished by making a longitudinal incision 3 or 4 cm. long through the anterior vaginal wall in the midline at the vagino-cervical junction. The point of a Mayo scissors is thrust under the vaginal wall and is held open and each side of the incision is grasped with a forceps. Then, the vaginal wall is alternately separated from the bladder and incised to the lower edge of the rugoid vaginal mucosa which represents the junction of the bladder and the urethra. If there is urethrocele and stress incontinence, the incision and dissection of the vaginal wall is carried on down to $1\frac{1}{2}$ or 2 cm. above the urethral meatus. This rugoid area requires sharp dissection with care because

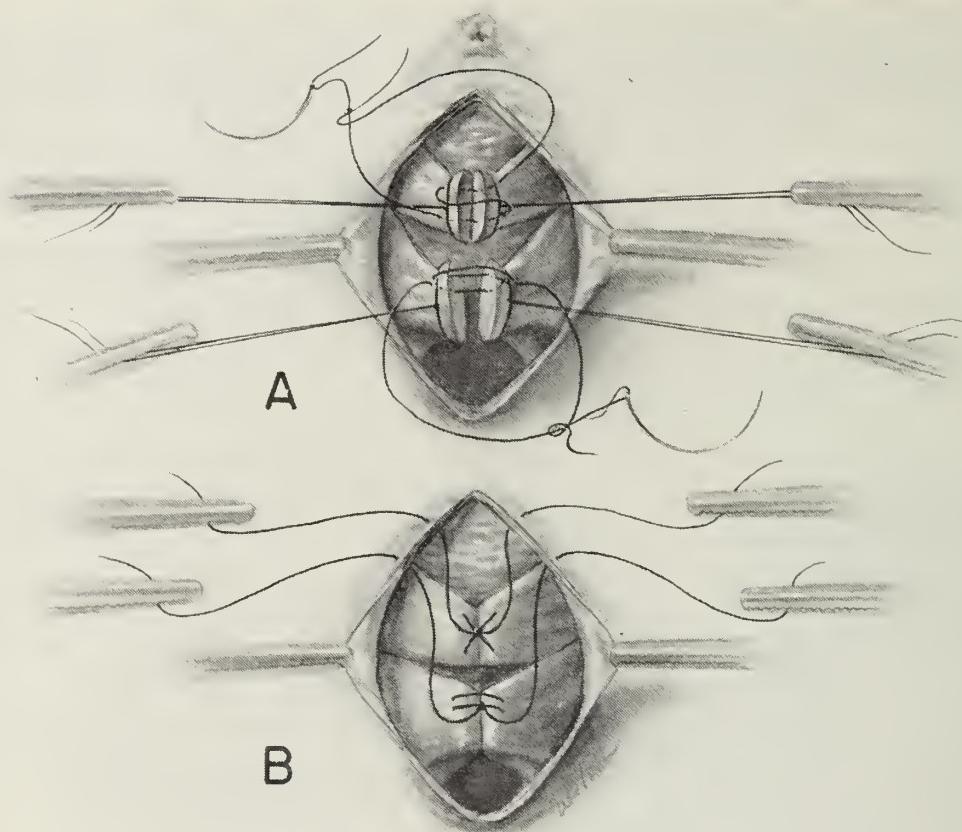


Figure 6. (a) The two superior and inferior pedicles are sutured together respectively. (b) The ends of these sutures are brought out through the vaginal wall under the urethra.

here the muscular walls of the vagina and urethra are intimately blended together. Next, with gauze and finger dissection, the vaginal wall is separated laterally and widely from the bladder. Finally, the knife handle and left index finger are used alternately to separate the bladder from the cervix and uterus anteriorly up to and through the peritoneal reflection.

None of the hypertrophied, redundant vaginal wall is removed. The suturing of the round and ovarian pedicles and broad ligament pedicles in the midline includes the vaginal wall, closing it and elevating the urethra and prolapsed vaginal wall high in the pelvis. This constitutes a floor to the pelvis, and a roof to the vagina; and, with an efficient perineorrhaphy below, lengthens the vagina. Thus, both the voluntary

and the involuntary muscles of the perineum and pelvis floor are restored. In those cases of prolapse of the urethra and the adjacent rugoid vaginal wall with a large cystocele, the incision and dissection of the anterior vaginal wall are carried down near the urethral meatus so that the sutures from the round and ovarian ligament pedicles take in the edge of the so called post urethral ligament and then include the vaginal wall. When this is done and the suture is tied, the urethra and bladder are elevated high behind the os pubis back to its attachment to the floor of the space of Retzius. This suture should not be placed too near the urethral meatus. In three cases, the urethra was carried so high behind the os pubis that it necessitated an anesthetic to pass a catheter. The utero-sacral ligaments are included in, and

constitute the posterior border of the broad ligament pedicles. Thus, they make a distinct contribution to the support of the pelvic diaphragm.

In no instance has the operation by the vaginal route failed and the abdomen had to be opened for the control of hemorrhage. The cases of hypertrophy of the uterus are well adapted to this technic. The viscus is not only enlarged, but it is elongated, maybe to $2\frac{1}{2}$ times its normal length; and, exceptionally, this elongation of the uterus may require one additional ligature on each side with the aid of the special cystic duct forceps. The control of the vascular pedicles is accurate, safe, and positive at all times. This is so in the most difficult cases as well as the easy ones. The incision of the vaginal wall *in sections*, only as the operation progresses, is useful in limiting the blood loss from capillary and venous oozing. No patient has had shock that required treatment.

Every maneuver that is time consuming and unessential has been left off. The usual length of time taken is around 50 minutes. The special cystic duct clamps occupy a minimum amount of space, they are easily applied and they never slip off the pedicle. Only once are two clamps used in the vagina at the same time. This technic greatly enlarges the field for the application of vaginal hysterectomy. It is especially advantageous because the anatomical orientation is perfect at all times. One assistant is ample, and the economy in time makes it possible to do the operation under novocain spinal block anesthesia.

There has been no damage to the ureters nor intestines. The urethra was lacerated once and the bladder twice with no sequelae. There was subsequent eversion of the vagina in one patient who had had only the vaginal hysterectomy done for a submucous fibroid causing excessive menorrhagia. The cys-

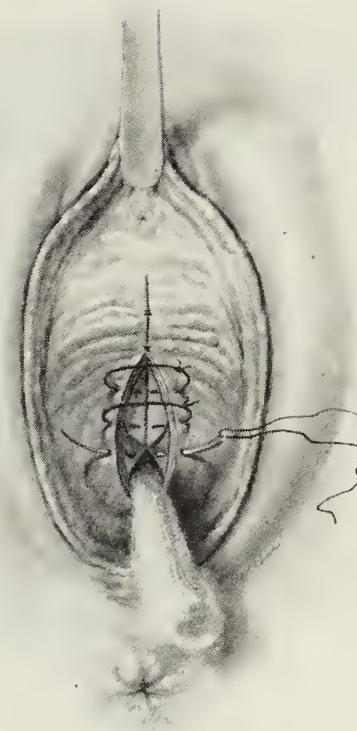


Figure 7. The vaginal wall is sutured to the broad ligament and the uterosacral ligament. The pack in the culdesac has been replaced by an iodoform gauze drain.

tocele nor the laceration and relaxation of the perineum were at all notable, so that the anterior colporrhaphy and perineorrhaphy were thought unnecessary. Since this experience, the entire operation has been done in every case that was parous. This is the recommended procedure—*anterior colporrhaphy, vaginal hysterectomy, and perineorrhaphy*. There has been one death, and it was due to a phlebothrombosis with pulmonary embolism.

Finding an excellent operative result at the postoperative check-up, is, indeed, gratifying to the surgeon; but most important to the patient is a good functional result. This operation, in this regard, has proven nearly ideal. The recurring soreness and bearing down pain in the pelvis and backache are relieved. The dyspareunia is relieved. The dysmenorrhœa and menorrhagia are relieved, and the cancer possibility is re-

moved. The women in the younger age group, when asked, say their sex life is more satisfactory since the operation.

What may be the original features of the operation are: (1) a special cystic duct hemostatic forceps is used, developing only four vascular pedicles, (2) none of the redundant anterior vaginal wall is removed, (3) the round and ovarian ligaments from each side are first sutured together in the midline and then to the post-urethral ligament and adjacent vaginal wall. Then the pedicle of the broad ligament from each side, with the utero-sacral ligament attached, are sutured together in the midline and advanced anteriorly and sutured to the vaginal wall well forward under the bladder, effectively eliminating the cystocele.

TABLE 1
Age at Operation

20 — 30 years	30
31 — 40 years	83
41 — 50 years	94
51 — 60 years	24
61 — 70 years	2
TOTAL	233

TABLE 2
Indications for Operation

Fibromyoma	50
Carcinoma Fundus Uterus	1
Pre-invasive Carcinoma Cervix	10
Chorio-Carcinoma	1
Benign Teratoma	2
Low Grade Leiomyo-Sarcoma	1
Ovarian Endometrioma	7
Granulosa Cell Tumor	1
Procidentia 3rd Degree	23
Sub-involution of Uterus	27
Lac. Per., Rec., Cys., with Deep Bi-Lat. Lac. Cervix and Uterine Hypertrophy	110
TOTAL	233

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DISCUSSION OF PAPERS BY DRs. GOODWYN AND THOMPSON:

DR. JOHN W. SIMMONS (Brunswick): I cannot discuss Dr. Thompson's paper because I have never done a vaginal hysterectomy, but having done mediocre practice for forty-four years in the industrial field, I would like to pay my respects to Dr. Goodwyn for his paper.

The workman uses his hands and his feet. He must get about, and he must work for a living. I recall that Dr. Fred Albee, who was my personal guest at the first meeting of the Georgia Industrial Surgeons Association at Sea Island, paid his respects to those who use metal in the holding of fractures.

As you know, he devises various instruments for drilling out pieces of bone and making bone screws and bone pegs and bone grafts, and things of that kind. He embarrassed both an orthopedic surgeon and one who was devoted to the relief of hernia and intervertebral discs, who were scheduled to appear on the program.

I want to say that in my experience the closed treatment of fractures, so far as it is possible to be done, as Dr. Goodwyn has shown in a great many instances, when they are not compounded, gives possibly the better result than one could possibly expect from any other thing, provided you manipulate the fragments into position under deep anesthesia, see that you have them in proper position, and then fix them with the proper cast for immobilization.

Having had quite a long experience in these industrial cases, especially of the extremities, I have found that a great many times we can avoid so much of the infection that takes place, so much destruction of bone, if we relieve or restore, rather, the circulation to the parts as nearly as possible, avoiding trauma, and seeing that we have as near an anatomical repositioning of the fragments as it is possible to secure.

These cases in a great many instances disappoint us when we get soft tissue between the ends of the fragments. It is almost impossible to detect under the fluoroscope any amount of soft tissue that would prevent the healing, and we finally find that when we have removed the cast, after we think we have had it properly healed, we still have motion there.

Sometimes we are tempted to go in with an open operation and dig this stuff out, reposition the fragments, and fasten them with the plates. I have found on several occasions that even after professional orthopedists have suggested the open procedure, if we give a few of these patients a little bit longer time in walking and weight bearing on some of these fractures they will finally have union. I have had this occur after a period of ten to twelve months. I am sure Dr. Goodwyn has had the same experience in some of his cases.

The thing I wish to stress is the fact that we cannot insult either the soft tissues or the bone with too much metal or with too much apparatus or with too many gadgets. I have seen these fractures, when the Smith-Peterson nail was put in (a fracture of the neck of the femur was impacted) begin to form callus with the nail, and we found that the circulation at the head and neck was so impaired that it was eighteen to twenty months before nature could replace the neck; she couldn't replace the neck, and we had just as much shortening as we would have had with the impacted fracture. When I have that condition, with not too much shortening, I let well enough alone.

I want to thank Dr. Goodwyn for his splendid presentation.

DR. EDMUND BRANNEN (Macon): There are several reasons why I do not qualify to discuss Dr. Goodwyn's paper, and there are several equally good reasons why I would like to make some comments on

Dr. Thompson's paper.

In the first place, I would like to mention that there has been a lifetime of very warm friendship between the two of us. In fact, he was the first individual I ever saw, because he ushered me into the world. I am sure that was his only act of outright malpractice. I hope he will be forgiven for it.

A second reason why I would like to comment on this paper is that I feel someone who has seen this procedure should say something about it. It has been my privilege not only to see it but to assist him on several occasions.

A third reason, more or less personal, is that one of his 233 cases happened to be my mother, and she had very good results.

To my mind, this technic combines the best of all the text-book techniques for vaginal hysterectomy. It is a combination of the best from the Hainey technic, the Mayo technic, and the various modifications that are mentioned, whereby the utero-sacral ligaments are brought forward to support the bladder. To my mind it is the simplest, most unique and most effective method that I have seen. I hope some day to be able to master it.

His point of entering the peritoneal cavity anteriorly and posteriorly before any blood is shed laterally is most significant, because all of us have been endless and needless bleeding as the vagina was excised lateral to the cervix early in the operation. He is able to control any bleeding that should occur by his utilization of the avascular portion of the broad ligament, an anatomic situation that is utilized from above by most of us but that is not often taken full advantage of when the operation is done from below.

When he gets his finger through the avascular part of the broad ligament and pulls down on the Mackenrodt ligaments and utero-sacral ligaments at the same time, he has the uterine artery and principal supports under control from that point. After the clamp is applied, he places the transfixing ligature that controls uterine artery bleeding. With the same suture he then controls the very troublesome cardinal ligament bleeding that usually requires time-consuming procedures when it is controlled in small segments.

Another advantage in entering the peritoneal cavity early is that he is able to evaluate any pelvic disease that might be present. It is also possible to evaluate the amount of relaxation and to decide the degree of tension to be placed upon each of the supporting structures of the uterus.

I am not sure that it is original with him, but I do not believe I have seen many people who have carried out the anterior dissection before emptying the bladder. He has pointed out to me that a bladder with urine in it gives him something to dissect against. He empties the bladder after the dissection is complete.

Another point that is routine with him, and is not universally routine by any means, is excision of the tubes. Again, he has pointed out that this prevents any possibility either of residual tubal disease or the formation of any form of mucus drainage from recanalization of the tubes, a tubal fistula being a possibility.

I would like to say three more things: He has a clamp that he calls his lion-jaw clamp and I am disappointed that he did not feature it in his prize-winning exhibition. When he gets his lion-jaw clamp onto a cervix it never gets away. It doesn't cut out and it doesn't pull through, and he is always master of the situation.

The second thing I would like to testify to is that he does complete the operation in the time he states. And sometimes he gets through in less time, since he usually gives his own novocain spinal anesthetic and then desires to complete the procedure before the expiration of the novocain. Very occasionally it is necessary to give supplemental anesthesia for the latter stages of the operation.

The third and closing comment is that he can also take out a pair of tonsils just as smoothly as he can take out a uterus.

DR. THOMAS P. GOODWYN (closing): I don't want you to receive the impression that I believe in open reductions. I believe in reducing every fracture possible by closed reduction. When I do an open reduction I do not hesitate to use stainless steel. I never put it in late in the treatment. It will not make a bone grow together, and you can use it only for immobilizing. If you want growth in a delayed union you have to put bone in to bridge the fracture.

Do not insert metal in compound fractures. I have done it a few times. I have had very little experience with it, but I have had a lot of experience taking out plates, wires and other foreign bodies.

In compound fractures, spend a little time in washing the wound. Insert an irrigator tip down to the bottom with a glass tip, and irrigate it and let the flow come out and wash out all foreign material that you can. If you drop a steak on the ground you couldn't eat it if you washed it for the rest of your life. You cannot sterilize a wound; you can get rid of a lot of excess debris and infectious material.

The thing that makes infection is poor blood supply. A wound with ragged edges, with long pedunculated tabs—those tabs are going to die, and they harbor infection, and the result will be osteomyelitis. If you do a debridement of the wound, excise all necrotic material back to where it can bleed and has good blood supply. Then infection can be controlled in most instances.

When debriding a wound I like to save every bit of skin I possibly can, and then I try to loosen the skin, if necessary, to bring it together. I don't think a fractured tibia ought to be left exposed; it ought to be covered with skin. If the skin won't come together after the skin around the wound is removed, then you should undermine it and make lateral slits, if necessary; if you can't do any better, pack it with vaseline gauze for a few days and do a skin graft, or do anything to cover it. A pedicle graft is often necessary, and many times it saves a prolonged osteomyelitis.

NOTE.—This paper was presented in response to a request by the Georgia Section of the Committee on Fractures of the American College of Surgeons, for more papers on the treatment of fractures.

POLYCYTHEMIA VERA

The modern concept of polycythemia is that just as leukemia is understood to be a disease of the leukocytes, so is polycythemia a malignant disease of a similar nature regarding the erythrocytes. The proper name for the condition is erythremia—an erythrocytemia in contrast to leukemia. This idea has led to new methods in the management of the malady.

The affliction is characterized by fatigue and weakness, accompanied by cyanosis of the face and lips and splenic tumor. Headaches and dizziness, parasthesias, emotional upsets, visual disturbances and sensitivity to cold are common features. The blood examination reveals a high erythrocyte count coincident with increased hemoglobin. The erythrocytes usually range from seven to ten millions, averaging about eight million cells per cubic millimeter. At times there occurs a rise in the leukocytes and the hematologic picture may be confusing. The sedimentation rate is undisturbed, the platelets elevated, and the bleeding and clot time are normal. As a rule, numerous blood studies are necessary over

a period of time before a diagnosis can be established.

Until very recently the treatment of polycythemia vera largely depended upon radiation of the long bones and the splenic region, together with frequent bleedings and gastric lavages. In 1918, phenylhydrazine was suggested, and was given in doses of 1.5 to 3.5 Gm. by mouth for a period of one week. A reaction usually occurred following the use of the chemical, and serious results may have ensued with damage to the liver, and aplasia of the bone marrow. After the reactive stages disappeared a maintenance dose of 100 to 200 mg. is often sufficient for maintenance of a low normal count. Irradiation of all of the bones, using skin erythema dosage given daily in a progressive course over various areas of the skeletal structure, also proved beneficial. The above treatments have not proved capable of satisfactorily controlling the disease so that the life span has been protected, and so far the disease is to be considered fatal.

In the recent issue of the *Journal of the American Medical Association*, Sept. 3, 1949, Dr. John H. Lawrence of Berkeley, Cal., presented a very informative article on the newer management of polycythemia, treating the patients with *sodium radiophosphate*. In 1938, after animal experimentation, Drs. Lawrence and Scott found that non-lethal doses of radiophosphate could be given animals and that it would localize in the bone and bone marrow and cause inhibition of cell production. Following their experimental work, they administered the phosphorous to two patients who had polycythemia. In both patients the erythrocytes were eventually maintained at a normal level, and the signs and symptoms of the malady were controlled for a period of ten years.

Since treating the first two people, they now have carried out further clinical and physiologic studies on 172 patients with that disease. The patients were aged from 19 to 75 years, averaging 50.7 years. Of those, 56.5 were males and 43.5 females. The diagnosis was made from the history, the physical examination, and the laboratory studies, including marrowgrams before and after therapy. Increased nucleated cell counts in the marrow were noted to return to normal levels, after therapy. The erythrocyte count was expected to be 7,000,000, or above, before the diagnosis was accepted.

The method of treatment with radiophosphate as regards the technical procedure is not clearly given by Dr. Lawrence. He refers to several patients as having received six doses of 20.3 millieuries of the substance in divided amounts, which represented one course of medication given over a period of three months. This course can be followed at a later period with more treatment as would be indicated by the patient's symptomatic response. He also refers to another patient who had been given 7 millieuries of P 32, followed

in three weeks by a second dosage of 5 millieuries. Two and one half years later he was again administered 1.18 millieuries because of the rise in erythrocytes. As far as noted, there would seem to be no general plan of treatment as to the amount of the phosphorous needed, and the therapy would have to depend largely on the blood studies in order to arrive at some opinion in that regard. Caution is made that blood platelets and erythrocytes should be kept as near as possible within normal limits so as to prevent thrombosis or any other damage to the vascular system.

Dr. Lawrence and his associates make no mention of side effects which have occurred while using radiophosphorous, in the article under discussion; however, one may find considerable information about complications and untoward reactions, and the dosage used in treating dyscrasias, by referring to *The Journal of Radiology*, 39: 573-597, November, 1942. Information may also be obtained from the Isotopes Division, Atomic Energy Commission, Oak Ridge, Tenn., attention: Dr. Paul C. Aebersold. From this source the solution of radiophosphorous can be obtained for use. It is necessary to prepare it with caution and to use it quickly on account of the short life of the isotope.

It is very difficult to analyze this valuable paper of Dr. Lawrence as to his actual beneficial results in all the treated cases which come under his observation. He mentions one group of patients treated during 1939 to 1942, composed of 30 patients. This group had each received two injections of 3 to 6 millieuries on the average of every three years, and 17 per cent have remained in normal health. He concludes with the statement that "at the present time patients with polycythemia vera, properly treated, have as favorable an outlook as do patients with diabetes mellitus treated with insulin, or those with pernicious anemia treated with liver".

It is apparent from Dr. Lawrence's report that P 32 is of benefit in polycythemia, and it would appear that we now have another remedy which will take its place along with insulin, liver extract and other remedies which have proved to be capable of controlling some otherwise very fatal and crippling diseases. We must caution, however, that the remedy propounded is *not a cure* for polycythemia vera.

Dr. Lawrence and his associates are not the only investigators who have had success with radiophosphorous. Drs. L. A. Erf and H. W. Jones made a report in the *Annals of Internal Medicine*, October, 1941. They treated 17 patients with radioactive phosphorous intravenously, with a total dosage of 7 to 11 millieuries. Response occurred 6 to 100 days later, and the polycythemics maintained a good satisfactory condition for six years.

JACK C. NORRIS, M.D.

PRESIDENT'S PAGE



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PRESIDENT'S PAGE

Received for publication in The Journal at 1 p.m., Sept. 28, 1949, three and one-half days after the printers had been given all material for the October 1949 number of The Journal, hence the reproduction of the original sheets by President Callaway - Ed.

When the present Constitution of the Medical Association of Georgia was written and adopted, it was an excellent document and very admirably fulfilled its desired functions. It was carefully thought out and concisely written. There could be no doubt as to its original intent and meaning.

At that time we had less than one third of our present membership and the entire work of the Associations office was carried on by one part time doctor who was elected Secretary-Treasurer. At the present time we have not only the part time Secretary-Treasurer but an Executive Secretary who uses one or more assistants. We have also recently acquired a Public Relations Director and a secretary for his office. The functions of the Association have yearly become more complex and more complicated. As these new conditions have arisen the Constitution has been changed by amendment, custom and at times ingored. Matters have been introduced into the Constitution which should have been merely by-laws. Approval by the House of Delegates of actions taken by Council have been accepted as amendments.



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The Association has outgrown its Constitutional set up.

The President is said to be "The actual Head of the Medical Association of Georgia" but is given no Constitutional authority whereby he can exercise this duty which is placed upon him.

The Council is not only the Finance Committee and Board of Directors but is the only judicial body of the Association. Its powers and duties in the first two are poorly defined and the last completely left to the imagination. Councils are nominated by the District Societies which have no constitutional existance.

The House of Delegates I assume could vote itself any authority it desired but it has not so far done so. The President must act as its presiding officer when he should be attending to more important duties. There are many other defects too numerous to mention at this time.

At our last meeting the House of Delegates directed that a committee be appointed to revise and if necessary rewrite



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the Constitution and bylaws of the Association. Dr. Henry Poer was appointed as Chairman of this committee which included a representative group of our members both geographically and by specialities. The Chairman has studied the Constitution of the other component Associations of the American Medical Association and plans to call his committee together in November for final action on this matter. If any members of the Association have any suggestions to make, Dr. Poer will welcome a letter outlining such changes and present these to his committee when it meets.

I feel sure we will find the work of this committee worthy of our approval when it is presented to us in Macon at our annual meeting next Spring.

Signed: _____
Enoch Callaway, M.D.

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OCTOBER, 1949

SUPERFICIAL EXAMINATION OF PATIENTS UNDER NATIONALIZED MEDICINE HELD HEALTH THREAT

Superficial medical examinations resulting from a nationalization of medicine are a threat to public health, in the opinion of Dr. Ernest E. Irons of Chicago, president of the American Medical Association.

Dr. Irons issued the warning in a speech prepared for delivery Sept. 11 before the 60th annual convention of the Washington State Medical Society in Seattle.

He pointed to conditions in England where hospitals have been taken over by the government and where doctors, in order to live, must have from 2,000 to 4,000 patients under the established panel system. The results are, Dr. Irons said, that "the sick must wait weeks or months for hospital admissions" and patients in doctors' offices receive only "a moment or two of the doctor's time."

"This possibly is all that some of them require, since they come to get something for nothing," he said. "But, the patient with early symptoms of serious disease such as cancer or tuberculosis receives the same superficial attention instead of a thorough examination. The disease which might have been recognized and arrested is allowed to grow to more serious stage."

"This kind of medical practice is foreign to the ideals of American medicine. We spend millions for the detection of early tuberculosis and cancer and more millions for research in these diseases. To establish a system which leads to superficial examinations and delay in detection of these diseases for which we are spending millions to prevent and cure does not make sense."

Dr. Irons also warned that the average citizen is exhibiting a dangerous complacency toward alarming social and medical changes.

"Our heritage of American freedom is now threatened, and the ground already has been broken for the erection in America of a welfare state," he said. "Under the promise of social benefits which all of us desire, the American people are being led into loss of their fundamental freedoms."

"The advocates of nationalized medicine are perpetrating a deception which may well be ruinous to the country and ultimately to themselves. This is the reason why medicine must turn from its traditional single-minded devoted-

ness to science and service and participate in political actions."

He said the pending Senate Bill 1679, providing for compulsory sickness insurance, is calculated to create "an entirely false picture of medical practice in the United States."

"In developing this great deception the proponents of nationalized medicine have drawn to their support many worthy citizens who earnestly desire the correction of social difficulties and injustices," he added. "These well-intentioned people, including some physicians, have either failed to recognize the governmental results of socialism, or, recognizing the ultimate outcome, conceal this knowledge for ulterior purposes."

He said that political leaders also are victims of the deception which is being practiced, adding:

"Political leaders are led to believe that the demand for sweeping medico-social changes come from the mass of the people, whereas the real source of this manufactured demand is the group of bureaucratic officials in Washington who would be the only ones ultimately benefited. They have not hesitated to divert federal funds to the purposes of their propaganda."

The average man is deceived not only as to the quality of care but as to its cost, he said.

"He is not made aware that as the program develops the tax will rise to 6 or even to 9 per cent, part of which he will pay in direct tax and more indirectly in the increased cost of the necessities of life which he must buy," Dr. Irons pointed out.

RESIDENCY LIMITATIONS BY MEDICAL SCHOOLS HELD TO BE DISSERVICE

The spreading movement among medical schools, especially those supported by states and municipalities, to limit their enrolments to students within their respective states is a disservice to the community, in the editorial opinion of the *Journal of the American Medical Association*.

That viewpoint is expressed in the Sept. 3 issue of the Journal which presents the 49th annual report on medical education in the United States and Canada, prepared by the Council on Medical Education and Hospitals of the A.M.A.

The report points out that four additional schools placed a limitation on the residencies of students in the academic year ended June 30, 1949, bringing the total to 13. Three years ago, every medical school in the United States accepted some out-of-state students.

The Journal, in editorially pointing out that in the last prewar year out-of-state students comprised 17.4 per cent of the freshman enrolment whereas the total was only 8.2 per cent in the last academic year, adds:

"While tax-supported institutions might well be expected to render service chiefly to the community that supports them, the exclusion of all

nonresident students may not be a real service to the community. The practice definitely narrows the potential area from which a school may seek support. Students who attend such schools do not experience the stimulation and broadening influence of association with students who have different geographic and educational backgrounds.

"A most serious consequence of this policy is denial of admission to superior out-of-state applicants in favor of less well-qualified residents. As a result the quality of the medical profession is lowered particularly in the states that follow such a short-sighted policy. The logical extension of this policy is exclusion from schools in other states of students from states in which medical schools exclude nonresidents. Again the ultimate effect is reduction of the quality of the medical profession in the states concerned."

To this, the report, prepared by Donald G. Anderson, M.D., Chicago, secretary of the council, with the assistance of Mrs. Anne Tipner, Chicago, adds:

"It is well known that this policy does not have the approval of the administrations and faculties of most of the schools concerned. In general, restrictions have been adopted as the result of direct or indirect pressure from the governmental agencies controlling the allocation of funds to the institutions."

Another development of recent years which shows further growth in the last academic year is the interest of medical schools in the problems of radioactive substances. The report shows that 49 medical schools and two schools of the basic medical sciences in the United States offer instruction in the clinical effects of nuclear energy.

The annual report covers 71 medical schools in the United States approved by the council and nine in Canada, also eight approved schools of the basic sciences in both countries.

It shows 5,094 physicians were graduated from medical schools in the United States in the academic year ended June 30, 1949, in contrast with 5,543 in the preceding year. This was the smallest graduating class in 10 years, it having been selected during the last year of the war when there was no provision for the deferment of pre-medical students by the Selective Service System.

Women graduates numbered 612, far surpassing the previous record of 392 set the year before. Women comprised 12.1 per cent of the graduating class, as against 7.1 per cent the year before.

Physicians graduated from Canadian medical schools totaled 679 in the last year, as against 632 in the preceding year.

Leading in the number of graduates in the United States were: University of Illinois College of Medicine, Chicago, 158; Jefferson Medical College, Philadelphia, 150; Harvard Medical School, Boston 141, and Northwestern University

Medical School, Chicago, 130. In Canada, the leading schools were University of Toronto Faculty of Medicine with 154 graduates, and McGill University Faculty of Medicine, Montreal, with 128.

"The enrolments in the senior class for 1949-50 (in the United States) indicate there will be approximately 5,600 graduates in 1949-50, which will be a larger graduating class than any except those that graduate in 1946 and 1947 at the culmination of the wartime accelerated program when several schools graduated two classes in one year," the report adds.

Total enrolment in the United States medical and basic science schools in the last academic year was 23,670, exclusive of students taking a required intern year. This represented an increase of 931 students, or 4.1 per cent. The freshman class of 6,683, the largest ever admitted, showed a 3 per cent increase.

Women numbered 2,109, or 8.9 per cent of the medical students. The veteran enrolment totaled 15,567, including 89 women, or 65.8 per cent. In the preceding year the veteran enrolment of 13,837, including 75 women, was 60.9 per cent of the total.

The report says that indications point to a freshman enrolment of about 6,900 students in the new academic year, setting a record. Commenting editorially, *The Journal* says:

"Part of the increase results from an increase in the number of approved schools. Moreover, the facilities of several existing schools have been expanded and the schools are accepting as many students as they can accommodate without a serious lowering of standards."

"On the basis of the new schools that are already being organized and the expansion of existing schools that is now under way, the freshman class in the medical schools of the United States will shortly exceed 7,000 students. The average size of the freshman class in the ten years preceding the war was 6,016. Thus a significant increase is occurring in the facilities for medical education in this country."

"This increase is gradual and is developing without the lowering of standards that would inevitably have resulted if the medical schools had abruptly enrolled a large number of additional students. Such an event might have hastened by three to five years an increase in the number of graduates, but lowering of the standards of medical education and of the quality of medical care would have been certain."

Medical education in the medical and basic science schools in the coming year will involve an expenditure of about \$61,000,000, an increase of \$10,000,000, the report shows. Receipts from tuition are estimated as \$13,900,000, or 22.3 per cent of the budget. The remainder of the cost will be borne by private contributions, government funds and miscellaneous revenues.

IMPROVED METHODS OF ANESTHESIA MAKE MODERN SURGERY SAFER

Importance of the role of the anesthesiologist in making possible many modern surgical procedures is emphasized by Ralph M. Tovell, M.D., and Ranald J. M. Steven, M.B., of Hartford Hospital, Hartford, Conn., in the Sept. 3 *Journal of the American Medical Association*.

"We venture to claim that the tremendous advances in surgery in recent years parallel directly the advances in anesthesia and the care of patients before and after operation," they write. "Development of new methods and new agents and the constantly increasing knowledge of human physiology have made many modern surgical procedures not only possible but practicable."

Studies of patients' blood and plasma volume made before surgery enable doctors to detect need for better nutrition or other care, they point out. Restoration of the needed elements will improve patients' ability to withstand surgical and anesthetic procedures.

Another guide to patients' ability to withstand operation is evaluation of respiratory function by x-rays and other means.

Cyclopropane, a potent anesthetic which can be used with a high percentage of oxygen and which has shown its freedom from irritability to the respiratory tract, has become the "agent of choice" for many operative procedures.

This anesthetic may be used for patients known to be suffering from heart disease, since they can be protected from harmful effects by continuous administration of procaine hydrochloride, a chemical used as a local anesthetic, during surgery.

Anesthesiologists have developed the technic of using a balanced form of anesthesia—a harmonious balance of more than one agent which will produce the most satisfactory results for both surgeon and patient.

For example, the article says, pentothal sodium is used to provide sedation during spinal anesthesia. Nausea that may accompany spinal anesthesia is prevented by this method.

SEEK CLUE TO ASTHMA TREATMENT IN STUDY OF EFFECT OF JAUNDICE

Observation of dramatic relief from chronic asthma obtained by patients who contracted jaundice provides a basis for research to help doctors understand the respiratory disease, according to an article in the Sept. 3 *Journal of the American Medical Association*.

A program of laboratory and clinical study of the effect of liver disorder on asthma is already in progress, says Dr. Nathan Gorin of Harvard Medical School, Boston.

Dr. Gorin points out the similarity between alleviation of symptoms obtained from jaundice in cases of chronic asthma and alleviation of

symptoms obtained from jaundice in cases of rheumatoid arthritis.

"In any chronic disease characterized by exacerbations and remissions and in which so many variable factors may play a part, some of which may be psychic, any claim to clinical relief must be accepted with considerable caution," he writes.

"I have presented three cases of intractable asthma in each of which the development of jaundice (caused by inflammation of the liver and cancer) was associated with decided remission of symptoms. One can only speculate as to the cause of this and note the remarkable analogy between the relief obtained in cases of rheumatoid arthritis and that seen in chronic asthma.

"Also, in these two groups of devastating sickness there lie within the person certain reparative powers, the nature of which are as yet unknown, apparently released by alterations in hepatic function.

"The 'reversibility' of disease processes that frequently are regarded as almost hopeless is of interest. The similarity of the relief obtained in these two groups of diseases immediately raises many questions as to their common denominator and as to the underlying mechanism for this dramatic change.

"Certainly, the observation calls for animal experimentation and further clinical study, both of which have already been started."

USE RADIOACTIVE COMPOUND TO CONTROL RARE BLOOD DISEASE

Control of the rare and previously fatal blood disease, polycythemia vera, a condition in which the body manufactures red blood cells too rapidly, is reported by Dr. John H. Lawrence of the University of California, Berkeley, in the Sept. 3 *Journal of the American Medical Association*.

In the treatment developed by Dr. Lawrence and his colleagues, a compound (sodium radio-phosphate) containing radioactive phosphorus is administered. This chemical collects "to a pronounced degree" in bone, bone marrow, and some rapidly growing tissue and apparently inhibits red cell production, according to the article.

Persons treated for polycythemia vera with the radioactive compound now have as favorable an outlook as do those treated for sugar diabetes with insulin or those treated for pernicious anemia with liver. Dr. Lawrence says. He bases his conclusion on a 10-year study of the treatment of 172 patients.

Average age at the onset of the blood disease in the series of patients was 50.7 years, and the average age of those patients who died was 67 years. This is nearly a normal life expectancy for persons in this age group, Dr. Lawrence points out.

STUDY EFFECT OF HAY FEVER DRUGS IN EPILEPSY

Study of the effect of two widely used hay fever drugs, benadryl and pyribenzamine, on epilepsy shows that benadryl decreases the frequency of seizures of the petit mal form of the disease, according to a report in the current Sept. 3 *Journal of the American Medical Association*.

Petit mal is the less severe type of epilepsy in which the sufferer is dazed for a few seconds at a time.

No claim is made by Drs. John A. Churchill and George D. Gammon of the University of Pennsylvania, Philadelphia, who reported on the drugs, that benadryl can be used as a treatment for petit mal at present.

The study shows further that both benadryl and pyribenzamine are capable of inducing more severe seizures in patients with certain brain lesions, and that pyribenzamine also increases seizures of petit mal epilepsy.

HEART INFECTION TAKES HEAVY TOLL IN DISABILITY

Despite the success doctors have achieved in curing infection of the lining of the heart by administering penicillin, patients who recover from the disease may be disabled.

One out of three patients in a group of 13 reported in the Sept. 10 *Journal of the American Medical Association*, were left with a progressive heart condition, although penicillin cleared up the active infection.

Subacute bacterial endocarditis, inflammation of the membrane which lines the heart, has been until recently an almost uniformly fatal disease. In a number of cases it follows rheumatic fever, the article points out.

With the advent of penicillin therapy, however, doctors have been able to cure many patients of the active heart infection. But since the membrane which lines the heart muscle covers the valves of the heart as well as its inner walls, endocarditis may leave scars which cause narrowing of one or more valves or interfere with their proper closing.

All of the group of patients reported by Drs. Sherman R. Kaplan, Ray H. Rosenman, Louis N. Katz, and William A. Bramis, of Michael Reese Hospital, Chicago, were followed from 25 to 61 months after their heart infection was cured by penicillin therapy.

Six of the patients had progressive heart disability since the onset of subacute bacterial endocarditis. In three of these the disability led to death from heart failure. Twelve showed no progression of heart condition, the doctors say.

ANTIBIOTIC DRUG GIVES FAST RELIEF FROM TYPHOID FEVER

Treatment of typhoid fever with the relatively

new antibiotic drug, chloromycetin, is so effective that patients generally are clear of fever three or four days after the drug is first administered, according to an article in the Sept. 10 *Journal of the American Medical Association*.

"Continued experience reveals that fever disappears during the first three or four days of treatment," Drs. Joseph E. Smadel and Charles A. Bailey of the Army Medical Department Research and Graduate School, Washington, D. C., and Dr. Theodore E. Woodward of the University of Maryland, Baltimore, say.

"Our early observations brought out that relapses of typhoid were common in treated patients. In order to eliminate such occurrences, we have prolonged the course of treatment.

"Analysis of the results obtained in 44 patients with typhoid who received chloramphenicol (chloromycetin) under our observation has indicated a striking relation between the duration of chemotherapy and the incidence of relapses.

"A clinical relapse occurred in seven of the 13 patients whose initial course of drug was given for eight days or less. None of the members of another group of 19 patients suffered relapses; this group was comparable to the first in essentially all respects, except that treatment was continued for nine to 14 days.

"A third group consisting of 12 patients, was treated for 14 to 23 days; relapses did not occur among these patients. All patients in the first group who had relapses responded satisfactorily when chloramphenicol treatment was again instituted.

"These results warrant the following conclusions. Chloramphenicol should be administered in adequate amounts for more than eight days to patients acutely ill with typhoid if relapses of the disease are to be avoided. There appears to be little advantage in continuing treatment for more than 11 days."

YOU OUGHT TO KNOW MY DOCTOR

Somewhere I have read the story of a teen-age boy who lived in a remote rural community. An accident had left him with a serious injury to his spine—an injury attended by unrelieved suffering. The good country doctor told his parents of a celebrated surgeon in a distant city who could operate, relieve the suffering, and practically restore the boy to normal life. The family was very poor, but neighbors made up a purse sufficient to provide transportation. The local physician telephoned the surgeon and was told to send the boy on—there would be no charge for his service. The boy made the journey to the distant city, and the delicate operation was successful. In due time the boy returned to his home. Family and friends met him at the railroad station. As they drove home the family plied him with questions—questions about his

journey—questions about his nurses—questions about the hospital—questions about the surgeon. When asked about the hospital the boy replied: "It was wonderful, but you ought to see my doctor." When asked about the nurses: "They were kind and good, but you ought to see my doctor. You ought to know my doctor."

We are passing through a period just now when some unkind and unjust statements are being made about the medical profession. Recently a prominent man speaking of the doctors of America used words such as "selfish," "mercenary," and other uncomplimentary terms. It seems to have become something of an indoor sport in certain quarters to push our doctors around. To such an attitude toward our physicians millions of us reply: "You ought to know my doctor."

The medical profession is an honorable profession. Its history of constructive, sacrificial service to suffering humanity answers all adverse criticism. And the spirit of the physicians of the past—the spirit of faithful, heroic, unselfish service—is alive and manifest in the lives and practice of our American doctors today. All of us know that there are quacks and crooks among doctors just as there are quacks and crooks in any group. I make bold to assert, however, that no group in society can give a better account of its stewardship than the medical fraternity. As a group they represent thorough, scientific training, high standards of ethics, and steadfast loyalty to their noble calling: "Healing humanity's hurt."

Personal Experience

As I think of the great number of doctors whose knowledge and skill have brought me and members of my family through many serious crises—physicians representing surgery, internal medicine, orthopedics, neurology, urology, obstetrics, radiology, pediatrics, eye, ear, nose and throat and dentistry, I say of each of them: "You ought to know my doctor."

Some Observations

A group of us from Knoxville have summer cabins in a remote section of the East Tennessee mountains, near the boundary of the Great Smoky Mountains National Park. While in our cabins one summer some of our wives visiting in a home at the head of a mountain cove found a boy who was horribly club-footed. Immediately we called an orthopedic surgeon in Memphis, Tennessee, and asked if he could do anything for the boy. Promptly Dr. Willis Campbell—I call his name because he is now in the spirit world—replied: "Bring him to me."

The boy was sent to Dr. Campbell's Clinic. The feet were straightened, and after a few weeks he was returned to the little mountain home wearing braces. When the time came for the removal of the braces I took him to Memphis and left him at the clinic, telling him that I

would call for him next day. When I went by for him the following morning he was in the lobby of the clinic. The braces had been removed and he was happy. I said to him, "We have a long, hard drive ahead of us and must get started." He replied: "I want to see Dr. Campbell before I go." I found the secretary and told her that the boy insisted on seeing Dr. Campbell. She went to the boy and told him that Dr. Campbell was operating and couldn't be disturbed. Then, noting the look of disappointment on his face, she said: "Why do you want to see Dr. Campbell?" He replied: "I want to thank him for straightening my feet." She threw her arms about him, drawing him to her, and said: "Go on, boy, Dr. Campbell is as proud of those feet as you are."

That boy is now a school teacher. He and many, many others think of Dr. Willis Campbell with boundless devotion and gratitude as they unite in saying: "You ought to know my doctor."

Such incidents are being repeated across America every day. In every city, village, and countryside of our nation these scenes are being re-enacted continuously. They are so familiar that they are commonplace. We have witnessed them so frequently that our eyes are blurred to the magnificent spirit which they represent.

The circle of suffering is always changing, but it is always full. Those in that circle represent every age, color, creed, and station of life. Our physicians spend their lives in that circle where pain and anxiety from an atmosphere that is heavy and tense. Calmly, intelligently, courageously, they wage a ceaseless warfare with the grim, threatening figure of death. It would be timely and appropriate for the people of America to catch the spirit of the little Scotch community so beautifully pictured in Ian MacClaren's "Beside the Bonnie Briar Bush," and applaud our doctors.

If the grateful voices of those in hospitals, clinics, and homes of suffering where faithful physicians quietly minister, were all blended together they would form a mighty chorus sounding across our nation lifting the refrain: "You ought to know my doctor."

FRED F. BROWN, M.A., TH.D., D.D.,
Knoxville, Tenn.

The JOURNAL would like to record the scientific work of Georgia physicians. It earnestly requests, therefore, that each physician in the State who publishes a contribution in some other medical periodical submit an abstract of the article for these columns.

Beg your pardon. The next annual session of the Medical Association of Georgia will be held in Macon April 18-21, 1950. Remember the month and the dates. Make your hotel reservations now, please.

GEORGIA DEPARTMENT OF PUBLIC HEALTH

TUBERCULOSIS—STILL THE GREAT HEALTH PROBLEM

H. C. SCHENCK, M.D., *Director,*
Division of Tuberculosis Control,
Georgia Department of Public Health,
Atlanta

Dr. H. Corwin Hinshaw, Rochester, Minn., who has done a great deal of research work in the use of antibiotics in tuberculosis, particularly with streptomycin, had the following to say in an address before the American Trudeau Society at its annual meeting in Detroit in May of this year:

"Most dangerous is our emphasis upon our accomplishments rather than emphasis upon our unfulfilled tasks. We have been boasting to the world of our great strides toward eradication of the disease and are beginning to believe our own propaganda. That situation is becoming dangerous, and we should face the facts.

"Let us forget all about progressive reduction in tuberculosis mortality statistics for a moment and look at the present situation. Tuberculosis, today and in the United States, remains the most important chronic fatal disease to be caused by a germ, the most important infectious disease, the most important of all diseases of young people, the most important of the truly preventable diseases—need I say more?"

He had more to say, of course, and a careful perusal of the entire article will furnish additional food for thought.

The following table will help to prove why tuberculosis, still not under control, remains one of our most serious health problems. It is a table showing the place of tuberculosis among the ten leading causes of death and particular attention is called to its position in the age groups from 15 through 39. With the exception of the 35 to 39 year age group, tuberculosis is led only by deaths from accidents and homicides. It then is actually the first cause of death from disease in the 15 to 35-year age group. In the 35 to 40-year age group, tuberculosis is led only by deaths from accidents and heart disease. Actually then it is in second place as a cause of death in this age group and it may even be considered in first place, because heart disease is quite commonly secondary to other diseases.

The toll of tuberculosis is taken chiefly during the most productive years of life, economically and biologically speaking. And yet the disease is regarded as preventable; that is, its cause is known, the diagnosis is fairly easy and effective methods are known by which its spread can be checked. Why then, if it is preventable, must people be subjected to what apparently is a constant threat of disease and death? The answer

can only be an admission that the means known to be effective in the prevention of tuberculosis are not adequately practiced. It has been shown by tuberculin testing in large groups that 50 per cent of our adult population have been infected with tubercle bacilli. Of course, all of the infected people that happen to be susceptible to tuberculosis; that is, who have low resistance to it, develop tuberculous disease.

TABLE I
*Tuberculosis Deaths and Death Rates Per 100,000
Population in Georgia—1947*

Age Group	Rank as a Cause of Death	Number of Deaths	Rate Per 100,000 Population
All ages	8	1074	33.2
Under 1 yr.	10 plus
1-4	7	16	5.6
5-9	10 plus
10-14	4	18	6.0
15-19	2	53	18.4
20-24	2	99	36.3
25-29	3	101	37.7
30-34	2	121	48.4
35-39	3	120	54.1
40-44	5	113	56.8
45-49	6	81	45.7
50-54	6	90	58.9
55-59	7	80	64.3
60-64	8	46	50.6
65-69	8	50	70.3
70-74	9	49	92.9

During the years 1935 to 1948 inclusive, 41,074 cases of tuberculosis were reported in this State. During the same period 18,948 deaths were reported, while only 9,000 cases were admitted and discharged from the State Sanatorium. This means that less than one-fourth of the reported cases received treatment at the State Sanatorium and that the number admitted to the hospital was only half the number that died. Last year, 1948, 3,170 new cases and 998 deaths were reported, and in the same period 1,125 patients were admitted to Battey State Hospital. Of the total deaths, 164 occurred at the State Sanatorium which means that 834 deaths occurred elsewhere—the vast majority in their homes. These figures show that there is necessarily a very large number of patients who must receive their care and treatment in their own homes and communities. Under such circumstances, the most careful techniques must be employed to prevent the spread of infection to any and all persons with whom they come in contact.

Factors Which Prevent Control of Tuberculosis

There are a number of factors which make control of sources of infection an impossibility at present.

1. Present methods as employed by physicians and official case finding agencies (the health departments) are not bringing to light all of the cases as they develop. Too many cases are not diagnosed until they are advanced, and often

hopelessly advanced. Too many cases (413 in 1948) are reported for the first time by death certificate.

2. Too many patients leave the sanatorium when they do not have the means to properly "take the cure" otherwise. A considerable number of patients are not cooperative at any stage of the disease. Some, during the early stages, fail to take advantage of the opportunity for satisfactory recovery and, later, become public health problems; others with communicable disease refuse to do anything to protect other people.

3. There are far too few hospital beds for those who require them and far too little money in the hands of the welfare departments to meet the needs of those who cannot be hospitalized.

Just as long as these obstacles remain to plague us, just that long will we be without effective control.

How Control Can Be Effected

The remedy that must be employed is to overcome these hindrances:

1. The physician can help greatly by keeping in mind the importance of tuberculosis as a health problem. A single great cause of death, killing more people in the most productive period of life than any other disease, certainly merits his unceasing vigilance. The physician, ever mindful of its possible presence in every patient who consults him, will rarely find himself later on with an advanced case of tuberculosis on his hands which his conscience may tell him he should have suspected and diagnosed much earlier. He may aid the health authorities by reporting his cases to enable them to take whatever steps are necessary to prevent the spread of infection and to assist as may seem advisable in the follow-up examinations of their contacts.

2. Much could be done to fill the gap in control which results from the very great lack of sanatorium and hospital facilities for the tuberculous by adequately augmenting local welfare agency funds so that each tuberculous patient and his family may have what is required to meet the problems of care and isolation and medical attention within the home and community. Of course, this would require a great amount of money but not nearly what it would take to build and maintain additional institutional beds, nor what it now costs in many different ways to have uncontrolled tuberculosis.

3. In addition, and most important, is the need for forcible hospitalization of those patients, who may be termed recalcitrant, and who, having communicable tuberculosis, refuse to exercise the precautions necessary to protect the public from infection. They are largely responsible for perpetuating tuberculosis and for the misery and deaths it produces.

Until all of the conditions necessary to stop the infection of people with tubercle bacilli are met, we cannot boast of having control over tuberculosis.

PRESENTATION OF A PLAQUE FROM THE MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA

Dr. Catharine Macfarlane, of Philadelphia, a guest speaker at our Centennial Meeting, May 11, 1949, was also the official representative of the Medical Society of the State of Pennsylvania to the Centennial Meeting of the Medical Association of Georgia.

In her gracious and charming manner she brought greetings from her State Medical Association and presented a beautiful parchment lettered in colors from the Pennsylvania Society with these remarks:

"It is a great privilege to be with you this evening, Mr. President, ladies and gentlemen, to share with you the interest and excitement of this anniversary, and to enjoy your Southern hospitality and to meet so many distinguished physicians and so many lovely ladies.

"This evening in Philadelphia the Philadelphia County Medical Society is holding its centennial dinner, and Dr. Richard Kearns, the president, asked me to bring congratulations and felicitations to your Association.

"Also, as you have heard Dr. Callaway say, I have been delegated by Dr. Gilson Engel, president of the Medical Society of the State of Pennsylvania, to bring greetings and congratulations from that organization.

"Last year, when the Pennsylvania Society was holding its centennial anniversary, one of the many distinguished guests was your president, Dr. Edgar H. Greene; and Mrs. Greene. Much interest was added to the proceedings by the presentation on the part of that very lovely lady of a gavel made of wood from the birthplace of Dr. Crawford Long, to the Medical Society of the State of Pennsylvania. I have been delegated to bring a souvenir to this meeting. It isn't so historic nor so unusual and unique as the gavel, but it is sent with the warmest feelings of regard to your organization.

"I would like to read what the Pennsylvania Society says on this plaque:

"To the Medical Association of Georgia: In recognition of the laudable devotion of the Medical Association of Georgia to the high ideals of the profession of medicine throughout the last century, 1849-1949, the Medical Society of the State of Pennsylvania extends greetings and best wishes for a second century of distinguished service to the people of the Empire State of the South—Georgia—which with Pennsylvania, the Keystone State, is one of the thirteen original states of the Union. May your contributions to progress in the science and art of medicine long continue.

"It is signed by Gilson Colby Engel, president; Frank Lorenzo, chairman of the Board of Trustees, and Walter F. Donaldson, secretary-treasurer."

"I am honored, Mr. President, to present this token to you."

PRESIDENT GREENE: "Dr. Macfarlane, this is a most delightful and unexpected incident in my life and in the history of this Association. I am not only surprised at this gift, but I must tell you that I am gratified and pleased, and I thank you from the bottom of my heart, as president of the Medical Association of Georgia, for this wonderful remembrance from the Medical Society of the State of Pennsylvania.

"In my report to the House of Delegates yesterday, and also in my talk to the Auxiliary this morning, Dr. Macfarlane, I said that there is noticeable evidence of a strong bond of friendship between the medical profession of Pennsylvania and that of Georgia. I believe the remarks by Dr. MacFarlane and this magnificent token which she has brought to us tonight bear out the truthfulness of my statement.

"This plaque will be placed in the archives of the Medical Association of Georgia and will be held as one of our most prized and precious gifts of our Centennial Celebration."

Early in October 1948 Mrs. Greene and I, with many other state medical association presidents and their wives, attended the Centennial Celebration of the Medical Society of the State of Pennsylvania in Philadelphia. On the occasion of the magnificent state dinner, Monday night, October 4, 1948, in the ball room of the Bellvue-Stratford Hotel, our Association presented to the Pennsylvania Society a gavel encircled by a silver band on which was inscribed: "*This gavel made of dogwood grown at the birthplace of Crawford Williamson Long, M.D. Presented to the Medical Society of the State of Pennsylvania-Centennial Celebration—By the Medical Association of Georgia.*"

Dr. Long, after graduation from the University of Georgia received his M.D. degree from the medical school of the University of Pennsylvania, in Philadelphia, and is recognized there as the discoverer of ether as an anesthetic.

The gavel, a work of genuine craftsmanship, was suggested by Dr. Edgar D. Shanks and was designed by Drs. Edgar D. Shanks, Joseph Massee, Edgar H. Greene and Mr. H. F. Linder, gold and silversmith. Dr. Massee made the gavel and Mr. Linder made and engraved the silver band. It was indeed a work of art, graciously received by President Elmer Hess of the Pennsylvania Society. A story of the presentation, together with photographs and description of the gavel, appeared in *The Journal of the Medical Society of the State of Pennsylvania* for November 1948.

EDGAR H. GREENE, M.D.

Beg your pardon. The next annual session of the Medical Association of Georgia will be held in Macon April 18-21, 1950. Remember the month and the dates. Make your hotel reservations now, please.

NEWS ITEMS

Dr. C. L. Allgood, retired Scottdale physician, after practicing medicine for 35 years in Scottdale and DeKalb County, is building a home at Ashantilly near Darien.

* * *

Dr. Samuel C. Atkinson, Woodbine, recently accepted a residency in surgery at the New York University and Bellevue Medical Center, New York City. While Dr. Atkinson is away the Atkinson Memorial Hospital at Woodbine, which he founded in 1947, will be closed temporarily. He is a native of Camden County and has rendered a wide service in his profession and his many friends will look forward to his return to his practice at Woodbine.

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Dr. Bertram Price Avera, Jr., a native of Wrens, announces the opening of his offices at 301 Gilmore Street, Waycross, for the practice of internal medicine and diagnosis. He will be associated with Dr. Arthur M. Knight, Jr.

* * *

Dr. B. T. Beasley, Atlanta, was a guest speaker on the program of the newly-organized Southwestern Surgical Congress, held at the Shamrock Hotel, Houston, Texas, Sept. 26-28.

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Dr. Hervey M. Cleckley, Augusta, head of the department of psychiatry at the University of Georgia School of Medicine, with his staff of Dr. Marion Estes and Dr. Corbett Thigpen, will serve as consultant at the Milledgeville State Hospital, according to Dr. Thomas G. Peacock, Milledgeville, hospital superintendent. Dr. J. R. S. Mays, Macon psychiatrist will also serve as consultant. Dr. D. F. Mullins, Jr., Athens, pathologist at Athens General and St. Mary's hospitals, has been appointed consulting pathologist. He will replace Dr. George B. Adams who has accepted a position at the county hospital in Anderson, N. C. Dr. Walter A. Sikes, former staff member, will return to the Milledgeville State Hospital, Milledgeville, in December upon his discharge from the Medical Corps of the U. S. Army. He is now stationed at Phoenix, Pa. He will serve as resident psychiatrist on reception service.

* * *

Dr. Gordon T. Crozier, Valdosta physician, for 30 years commissioner of public health for Lowndes County, has requested retirement because of his health. His request was approved by the Lowndes County Board of Health. In a letter to Dr. Crozier, the board wrote: "You have accumulated sufficient annual vacation leave and sick leave to entitle you to full salary until January 1, 1950. You will receive your salary check as usual on the first of each month. At your retirement on January 1, we will cooperate with you in completing forms necessary for securing your retirement benefits." All present services will be maintained, it was emphasized by the board, and it is anticipated that there will be a reorganization when the new commissioner is obtained. Dr. H. T. Adkins, Waycross, of the State Health Department, has been asked to work as closely with the Lowndes County board as possible, and to give as much time as he can to the health unit at Valdosta during the interim until a new health commissioner is obtained.

* * *

Dr. Ernest Daniel, Dawson physician, was recently elected a director of the Dawson Rotary Club. Dr. Steve P. Kenyon, Dawson physician, is on the program committee of the above-named club.

* * *

Dr. Paul R. Davidson, formerly of Chambersburg, Pa., has arrived in Savannah to take over duties as chief of surgical service at Marine Hospital. Dr. Davidson is a diplomate of the American Board of Surgeons and a fellow of the American College of Surgeons. His formal title at the hospital is chief of medical service and he holds the rank of commander or senior surgeon. During World War II, he served for three and one-half years as an army medical officer.

Diabetes Control Drive, a far-reaching program to control diabetes will be launched in Georgia this fall. Dr. C. J. McLoughlin, Atlanta physician, said every Georgian would be asked to cooperate in a concerted effort to uncover unknown cases of diabetes in the State. "For every known case of diabetes," he said, "we believe there is an unknown case." He pointed out that the United States has about 4,000,000 diabetics but added only half of these are now aware they have the disease. Dr. James E. Paullin, Atlanta, with whom Dr. McLoughlin is associated, will spearhead the anti-diabetes drive, which is part of a national campaign to curb the disease, with the assistance of Dr. McLoughlin. Local health agencies have pledged their support, as has the Council of the Medical Association of Georgia, of which Dr. W. F. Reavis, Waycross, is chairman.

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Dr. J. R. Evans, Decatur physician, and DeKalb County health officer, recently addressed the Buford-Clairston Civic Club on health and hospital conditions.

* * *

Emory University School of Medicine, Atlanta, and the University of Georgia School of Medicine, Augusta, are among the medical schools receiving grants in the search for a "mechanical heart," which won Federal financial backing recently. Such a mechanism would replace the heart during the operations. The Public Health Service announced grants of \$8,614,737 to 85 medical schools and research institutions. Among these, the University of Georgia School of Medicine, Augusta, will receive \$58,000 for construction and equipment for additional laboratory and animal quarters. Emory University School of Medicine, Atlanta, will receive \$14,000 for teaching funds and \$15,120 for research. Dr. R. Hugh Wood, Emory dean, said funds would be used to coordinate the study of heart disease. The research at Emory will include x-ray equipment to take motion pictures of the heart in action, he said.

"This marks the first broad scale Federal support of the attack on heart disease under the National Heart Institute," said Surgeon General Leonard A. Scheele. "It complements the programs of the American Heart Association and other nongovernmental groups."

The new grants provide: \$5,890,395 for construction of heart research laboratory facilities at 22 non-Federal institutions. \$671,032 for improving and expanding programs of heart teaching in 46 medical schools. \$2,053,310 for 189 research investigations in 66 non-Federal institutions.

Some of the research projects will study:

1. Environmental and hereditary factors of heart disease.
2. New surgical methods and new drugs and substances.
3. Dietary factors, including the role of cholesterol—a fatty substance found in the blood stream and in many important foods—in arteriosclerosis (hardening of the arteries) and in blood clots.
4. The effect of secretions of the liver and kidneys into the blood, and the salt and water exchange of patients with heart disease.
5. The role of the adrenal cortex gland in protecting the body against so-called allergic reactions, in view of the fact that rheumatic fever may be an "allergic" reaction to a streptococcus infection.

* * *

The Georgia Heart Association held its first annual convention at the Idle Hour Country Club, Macon, September 16. A meeting of various committees and the Board of Directors opened the convention. At the business session reports of committees were given, plans for a budget for the year, and outline for a fund-raising program. Election of officers, directors and delegates were also held during the business session. Dr. Henry A. Schroeder, St. Louis, of the Barnes Hospital, and associate professor of medicine at Washington University School of Medicine, was guest speaker. His subject was "Hypertension." Georgia physicians who read papers at the scientific session were Drs. John Willis Hurst, Arthur J. Merrill and Robert L. Whipple, Jr., all of Atlanta,

and Dr. Thomas Ross, Macon. Following the dinner meeting, Dr. Schroeder presented his address on blood pressure. Officers are Dr. T. Sterling Claiborne, Atlanta, president; Dr. J. W. Chambers, LaGrange, vice-president; Dr. J. Gordon Barrow, Atlanta, secretary-treasurer, and Mr. Linwood Beck, Atlanta, executive secretary.

* * *

Georgia will get approximately \$1,200,000 to step up its fight for better health if Congress passes the bill to help finance and expand local health units, the State Health Department announced September 3. Dr. T. F. Sellers, director of the Georgia Department of Public Health, said the bill would be a "godsend to Georgia's fight against the ravages of disease." Dr. Sellers said only about 50 Georgia counties now have full time health services. He said another 60 have inadequate health protection. And the remainder have no local public health service. "With more money we can do more toward footing the bill for better health for small counties and for the counties that are economically poor," he stated.

* * *

The Fulton County Medical Society held its semi-monthly dinner meeting at the Academy of Medicine, Atlanta, September 1. Scientific program: Symposium—Fractures of the Hip. Dr. Joseph H. Boland, moderator. "Intertrochanteric Fractures of the Hip", Dr. H. Walker Jernigan; "Fractures of the Neck of the Femur", Dr. W. Philip Warner, Jr.; "Complications of Fractures of the Hip", Dr. Calvin Sandison and Dr. Pierce Allgood. To open discussion Dr. J. H. Kite.

* * *

The Georgia Orthopedic Surgeons Association recently met at the King and Prince Hotel, St. Simons Island, for a weekend conference. Approximately 30 members of the association were present for the reading of scientific papers. Dr. J. H. Kite of Atlanta heads the group.

* * *

Dr. Jay Goldstein, Warner Robins Medical Center physician, has been accepted as a member in the American Academy of General Practice. Dr. Goldstein has been doing general practice at Warner Robins for the past four years.

* * *

Dr. Leon J. Goodman, Macon and Warner Robins physician, has been elected to the rank of a certified fellow in the International College of Surgeons. Dr. Goodman will receive his degree during the annual assembly in Atlantic City in November. He resides in Macon, maintains his practice in obstetrics and gynecology in Macon and Warner Robins, going to the Medical Center three times a week.

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The Georgia Vocational Rehabilitation Service, Department of Education, recently held a week-long conference at the Hotel General Oglethorpe, Savannah. "Highly technical" topics were included in the discussion. Appearing on the program were Dr. C. E. Rushin, Atlanta; Dr. B. E. Collins, Waycross, Dr. J. K. Quattlebaum, Savannah; Dr. Spencer Kirkland, Atlanta; Dr. Mark Dougherty, Atlanta; Dr. Enoch Callaway, LaGrange; Dr. Fred Rudder, Atlanta; Dr. O. F. Keen, Macon; Dr. Edgar Greene, Dr. Hal Davison, Dr. Richard Wilson, and Dr. C. C. Aven, all of Atlanta, and Dr. Robert Bennett, Warm Springs.

* * *

Dr. Woodrow Goss, a native of Richland, announces the opening of his office at Richland for the practice of medicine and surgery. Richland at one time had four or five physicians, but for the past several years Dr. A. R. Sims has served alone a wide area. Dr. Goss is a graduate of the University of Georgia School of Medicine, Augusta. After serving his internship in New York City and Newark, N. J., he made a special study of surgery. He has been resident physician in a hospital at Spartanburg, S. C., for about two years.

Dr. John C. Howard, Savannah physician, has been appointed to the residency of eye, ear, nose and throat at the Lawson Veterans Administration Hospital in Atlanta. Dr. Howard will serve under Dr. Phinizy Calhoun and Dr. Lester Brown. He has been in Savannah for three years, and plans to resume his practice when he completes his training at Lawson VA Hospital.

* * *

Dr. Harry Hutchins, Buford physician and surgeon, was recently called into active service by the U. S. Army Medical Corps, where he will serve for the next two years. He is stationed at the base hospital, Fort Jackson, S. C. Dr. Hutchins was in the Army Training Program Reserve while attending University of Maryland School of Medicine and College of Physicians and Surgeons, Baltimore, Md. He has been associated with his father, Dr. W. J. Hutchins, at the Hutchins Memorial Hospital, Buford.

* * *

Dr. R. M. Joiner, Moultrie physician and golf enthusiast, is the new president of the Sunset Country Club for 1949-50. Dr. Joiner served as vice-president of the club last year, and was recently elected president of the combined directorate of the country club and Community Trust, which sponsored the Sunset layout.

* * *

Dr. Alexander D. Langmuir, former associate professor of Epidemiology at Johns Hopkins University School of Hygiene and Public Health, Baltimore, Md., has been appointed Chief of the Epidemiology Division of the Communicable Disease Center, Public Health Service, in Atlanta. Dr. Langmuir received his M.D. degree from Cornell University Medical College, New York City. He was awarded the master of public health degree by Johns Hopkins University School of Medicine, Baltimore, Md., and is an authority on the epidemiology of acute respiratory diseases and control of air-borne infections, already has begun his duties in Atlanta.

* * *

Col. Charles L. Leedham, Augusta, chief of the Medical Service section at Oliver General Hospital, recently addressed the Young Adults Club at their monthly meeting at the Augusta YMCA. Colonel Leedham used as his subject "A Trip Through Germany", based on his experiences while on a consultant tour to American hospitals in Germany last year, and showed movies he had taken while on his tour.

* * *

Dr. Robert C. McGahee, Augusta pediatrician, recently told the Augusta Kiwanis Club that "socialized medicine has lowered the quality of medical care in every country where it has been tried." In an address condemning national bills that call for compulsory health insurance, Dr. McGahee asserted "this is a problem common to all of us, and not merely to the medical profession."

* * *

Dr. John R. McGibony, native of Greensboro and a graduate of the University of Georgia School of Medicine, Augusta, in 1927, has been promoted to the Division of Medical and Hospital Resources within the Bureau of Medical Services, which is among new divisions established with the reorganization of Public Health Service, Federal Security Agency, recently approved by Surgeon General Leonard A. Scheele.

* * *

Dr. Clarence W. Mills, Atlanta, announces the removal of his office to 809 Medical Arts Building, 384 Peachtree Street, N. E., Atlanta. Practice limited to internal medicine and diseases of the chest.

* * *

The National Institute of Health in Washington, D. C., recently awarded a grant of \$7,700 for the continuation of a research project on venereal disease, sponsored by Emory University School of Medicine, Grady Memorial Hospital and the Georgia Department of Public Health.

Dr. Albert Heyman, Atlanta, associate in medicine at Emory University School of Medicine, who is in charge of the cooperative project, said the funds would be used for continued evaluation of the various methods of treating venereal disease. Dr. Heyman said penicillin was now the principal method of treatment, but research tests evaluated different schedules and dosages of the drug. Two other Georgia institutions received grants from the Institute of Health. The University of Georgia at Athens was awarded \$8,300 for a project directed by Dr. George Hugh Boyd, and the University of Georgia School of Medicine at Augusta was awarded \$15,000 for research conducted by Dr. Robert B. Greenblatt, and Dr. Robert B. Dienst.

* * *

The Ninth District Medical Society held its meeting at the First Baptist Church, Canton, September 21. The Cherokee-Pickens County Medical Society were hosts to members and guests at a buffet supper following the program. Invocation by the Rev. W. W. Long, Canton, pastor of First Baptist Church; Address of Welcome by Mr. Charles Johnston, Canton Mayor; Response to Address of Welcome by Dr. W. Bruce Schaefer, Toccoa. Business session. Scientific program: "Nontraumatic Cerebral Hemorrhage", Dr. Gus McCravey, Chattanooga, Tenn.; "Fractures", Drs. C. J. Roper and E. A. Roper, Jasper; "Modern Plastic Surgery", Dr. John R. Lewis, Jr., Atlanta; "Public Relations", Dr. Enoch Callaway, LaGrange, president of the Medical Association of Georgia. Officers are Dr. R. E. Shiflet, Toccoa, president; Dr. J. L. Walker, Clarkesville, vice-president, and Dr. Hartwell Joiner, Gainesville, secretary-treasurer.

* * *

Dr. Dean Paschal, Dawson, has terminated his association with Dr. Steve P. Kenyon in the practice of medicine to enter Harvard Medical School, Boston, Mass., for a post-graduate course in pediatrics. He will be in school about nine months and then expects to engage in hospital work for a year.

* * *

Dr. Arthur Pruce, Atlanta, announces the removal of his office to 890 West Peachtree Street, N. W., Atlanta. Practice limited to physical medicine and rehabilitation.

* * *

Lt. Col. Robert L. Rhea, Jr., Augusta, Medical Corps, assistant to the chief of surgical service, Oliver General Hospital, received notification from the American College of Surgeons recently, that he had been accepted to fellowship in the college. The formal initiation was carried out at the annual convention of the American College of Surgeons held in Chicago, Ill., Oct. 17-21, 1949.

* * *

The Savannah Regional Blood Center of the American Red Cross, Savannah, was recently dedicated by Dr. Ross T. McIntire, director of the National Blood Program. Mr. Jack E. Cay, Jr., chairman of Savannah donor recruitment presented 15,127 signed donor pledges. Dr. McIntire, former head of the Navy Bureau of Medicine and Surgery and personal physician to the late President Franklin Delano Roosevelt, beamed his approval and revealed: "This is the finest thing that has been done so far in donor recruitment." Hearty endorsement and sponsorship of the donor recruitment was expressed by the Georgia Medical Society of Savannah.

* * *

Dr. Lewis S. Sims, who recently terminated his services with the U. S. Navy Medical Corps with the rank of commander, announces the opening of his office for the practice of medicine at Lincolnton. Dr. Sims has served 12 years in the Navy Medical Corps.

* * *

Southern physicians received national recognition

when the Honorable E. C. Gatlings of Arkansas serving in the House of Representatives, made mention of them in a speech entitled "The Doctors' Heart," which was published in the Congressional Record of August 15. In this speech which was a tribute to the doctors of our nation, Congressman Gatlings stated: "My friends of the profession, the physicians of our Southland, have an obligation to uphold, and obligation to those great men of medicine whose lives and services stand out brightly in our history. We pledge ourselves to be true to the ideals of Frank Vinsonhaler, the greatest name in Arkansas medicine, Turner Wooton, Sid Wolferman, also of Arkansas, Crawford Long of Georgia, Marion Sims of Alabama, Walter Vest of West Virginia, Irvin Abell of Kentucky, Frank Boland of Atlanta, and his neighbor Stewart Brown of Royston, Ga., Dean Robert Wilson, Sr. of South Carolina, along with those other two great souls of the Palmetto State, Adams Hayne of Columbia and W. L. (Buck) Pressly of Due West." In conclusion, "Gentlemen of the profession, if every physician here rededicated his life to the ideals of those great men named a moment ago, this meeting has been well worth while."

* * *

Dr. James W. Stapleton, Thomson physician, has accepted a position at the Dublin VA Hospital, Dublin. He will be connected with the orthopedic department of the Veteran's hospital.

* * *

Dr. T. F. Sellers, Atlanta, director of the Georgia Department of Public Health, recently said that county ordinaries are confused over the administration of Georgia's premarital health law. Dr. Sellers said the ordinaries have asked him for the syphilis test report blanks. He said that these are to go only to the 32 laboratories in the State that are qualified to make the blood tests. Dr. Sellers explained that is to insure no forgeries or other illegal entries on the blanks.

* * *

The Summerville Rotary Club, Summerville, recently met at the Ridgedale Tavern. Dr. W. M. Hyden had charge of the program and Dr. W. T. Gist presented Dr. J. L. Bibb, of Chattanooga, Tenn., guest speaker, who discussed "Health in America."

* * *

The Thomas County Health Department of Thomasville, recently conducted a syphilis survey. Dr. John D. Stillwell, Thomas County head of the department announced. Assisting the Thomas county health authorities in the survey were four communicable disease investigators from the Georgia Department of Public Health.

* * *

Dr. George Tolhurst, who has practiced general surgery at Georgia Baptist Hospital, Atlanta, for the past two years, announces the opening of his office for the practice of general medicine at Cleveland.

* * *

The University of Georgia School of Medicine, Augusta, opened its 1949-50 session September 15 with the largest class of seniors in its history, Dr. G. Lombard Kelly, dean, announced. The large enrollment has necessitated a lot of shifting to make room for them all, Dr. Kelly said.

* * *

Dr. Y. H. Yarbrough, Milledgeville, staff member of the Milledgeville State Hospital, recently addressed the Savannah Kiwanis Club at Hotel DeSoto, Savannah. Dr. Yarbrough discussed the subject "Mental Health is Everybody's Business." He has been connected with the state hospital for 43 years. He is a fellow of the American Psychiatric Association and a diplomate of the National Board of Neurology and Psychiatry. He is also the former director of the psychiatric clinic at Macon for the Milledgeville State Hospital.

Dr. George Pack, of New York City, will be the principal speaker at the Annual Clinic Day at the Sheffield Cancer Clinic of the Georgia Baptist Hospital, Atlanta, at 2 p.m. on November 4. His subject will be "Cancer of the Breast." All physicians are cordially invited to attend.

* * *

The Fulton County Medical Society holds its dinner meeting at the Academy of Medicine, Atlanta, September 15. Scientific program: Dr. Avery M. Dimmock, moderator. "Incidence of Early Malignancy in Vaginal Hysterectomy for Benign Conditions," Dr. Olin S. Cofer and Dr. Albert L. Evans; "The Relationship of Maternal RH Antibody Titers to the Occurrence and Prognosis of Erythroblastosis," Dr. Darrell Ayer, Dr. Frederick H. Thompson and Dr. Mary Gilliland. Dr. John F. Denton opened the discussion.

* * *

Georgia physicians listed in the new directory of members of the American Society of Anesthesiologists, Inc., are Drs. Clyde MacKenzie Brown, Albany; John W. Ashford, S. Ross Brown, Kathleen Byers, Thomas J. Collier, William Henry Galvin, Jr., Charles E. Lawrence, Linus J. Miller, Hayward S. Phillips, Eugene Spier, Thomas L. Tidmore, all of Atlanta; Charles C. Benton, John M. Brown, Thomas Caperton Deas, Robert E. Lau, Clarence H. Likins, Jr., Charles H. Mitchell, W. Forrest Powell, P. P. Volpitto, A. J. Waters, all of Augusta; Arthur M. Hendrix, Canton; Lester Rumble, Jr., Chamblee; Ollie Colquett Brannen, Columbus; Pierre C. Herault, Jr., William R. McCall, both of LaGrange; W. Lloyd Osteen, Charles W. Westerfield, both of Savannah; Addison W. Simpson, Jr., Washington. Georgia Society of Anesthesiologists officers are Perry P. Volpitto, Augusta, University of Georgia School of Medicine, president; W. Lloyd Osteen, Savannah, 610 Anderson Avenue, secretary, and Charles W. Westerfield, Savannah, 2044 Forrest Street, treasurer.

1950 ANNUAL SESSION OF THE MEDICAL ASSOCIATION OF GEORGIA

The 1950 annual session of the Medical Association of Georgia will be held in the City Auditorium, Macon, April 18-21.

Remember, please, the dates of our annual session; also remember that it is necessary to make your hotel reservations well in advance of the meeting.

On October 6 there was sent each member of the Association a post card inviting him or her to submit a title for a paper to be presented at the Macon meeting. Of course, every member will not wish to present a paper at the annual session of 1950, but the invitation and the response to it will be a guide to the Committee on Scientific Work in ascertaining the wishes of all members. This committee will be the judges of the material to make up the scientific program, and their combined decision will be final.

Applications for a place on the scientific program should be sent Dr. Edgar Shanks, 478 Peachtree St., N. E., Atlanta.

OBITUARY

Dr. Amos Jefferson Ayers, aged 60, noted Atlanta physician, died in a private hospital September 18, 1949. A native of Douglas County, near Villa Rica, Dr. Ayers graduated from Emory University School of Medicine, Atlanta, in 1917. He did post-graduate work at Harvard Medical School, Boston, Mass. He served his period of internship at the Home for Incurables and Grady Memorial Hospital, Atlanta, and began the practice of pathology in 1919. Dr. Ayers was on the staff of Crawford W. Long Memorial and Georgia Baptist Hospitals. He was a member of the Fulton County Medical Society, the Medical Association of Georgia, the American Board of Clinical Pathology, and a fellow of the American Medical Association. In addition, Dr. Ayers was a member of Theta Kappa Psi Medical fraternity, Sardis Masonic lodge, the Knights Templar, and the Shrine. He was a steward in the Peachtree Road Methodist Church. Survivors include his wife, the former Miss Ollie Strange, of Manning, S. C.; a son, Ralph Allen Ayers, of Atlanta; two brothers, Steven E. Ayers, of Winston, and James Carl Ayers, of Villa Rica. Funeral services were held at Spring Hill with Dr. Nat G. Long and Dr. W. M. Bishop officiating. Burial was in West View Cemetery, Atlanta.

* * *

Dr. Jackson Murrell Bowling, aged 42, Forest Park physician, died at a private hospital September 6, 1949. Born and reared in Durham, N. C., he had made his home in Forest Park for the past nine years. He graduated from the Medical College of Virginia, Richmond, Va., in 1931. During World War II he served 34 months in the Pacific Area and was discharged with the rank of captain in 1946. Dr. Bowling was a member of the Fulton County Medical Society, the Medical Association of Georgia, the North Carolina State Medical Society, and a fellow of the American Medical Association. He was also a member of the Forest Grove Baptist Church. Surviving are his wife; two daughters, Betty and Martha Frances Bowling; three brothers, Dr. W. W. Bowling and Dr. Howard X. Bowling, both of Durham, N. C., and E. H. Bowling, Washington, D. C. Funeral services were held at Forest Grove Baptist Church with the Rev. Hoyt Farr and the Rev. Roland Walker officiating. Burial was in Forest Grove Cemetery, Forest Park.

* * *

Dr. James Clarence Connor, aged 58, Cave Spring physician, died August 24, 1949. Born in Cherokee County, Ala., he was the son of William Robert Connor and Lenora Bell Connor. He spent most of his life at Cave Spring. He graduated from Birmingham Medical College, Birmingham, Ala., in 1913, and had practiced medicine in Cave Spring and Floyd County since shortly after graduation. Dr. Connor was a member of the Floyd County Medical Society, the Medical Association of Georgia, and a fellow of the American Medical Association. He was also a Mason and a member of the Shrine. Surviving are his wife, the former Emaline Spence; a daughter, Mrs. Harry Gray, Rio de Janeiro, Brazil; a brother, Lester Connor, Cedartown; two sisters, Mrs. Virgil F. Howard, Cedartown, and Mrs. Reece Ray, Marietta, and a granddaughter, Connie Gray. Funeral services were held at the First Baptist Church, Cave Spring, with Dr. John McGinnis, pastor of Cedartown First Baptist Church officiating. Burial was in Cave Spring Cemetery, Cave Spring.

* * *

Dr. Arthur Herman Dellinger, aged 61, widely known Rome physician and surgeon, died at his home, 228 Sherwood Road, Rome, August 26, 1949. He was born in Bartow County, son of Mary Nally Dellinger and the late W. W. Dellinger. He graduated from Emory University School of Medicine, Atlanta, in 1916, and had practiced medicine in Rome for 30 years. He took

postgraduate work in surgery at Augustarria Hospital, Chicago, Ill., and New York Polyclinic Medical School and Hospital, New York City. Dr. Dellinger was on the staff of Harbin, McCall and Floyd Hospitals, and taught obstetrics and materia medica in the Nurses Training School of both Harbin and McCall Hospitals. He served two terms as city physician of Rome, was past president of Floyd County Medical Society and Floyd Hospital. At the time of his death was chairman of the Floyd County board of health and a member of the executive board of Floyd County Hospital. He served as chairman of the Civil Service Board of Rome for eight years. He was a commissioned officer in World War I; in World War II he was examiner for draft board one; also medical adviser for the preflight school at Berry College, Rome. Dr. Dellinger was a member of Floyd County Medical Society, the Seventh District Medical Society, the Medical Association of Georgia and a fellow of the American Medical Society. He was a Mason, Elk, and a member of Coosa Country and Callier Springs Golf Clubs. He is survived by his wife, the former Ruth Raiden; a son, Dr. Raiden W. Dellinger, Rome, his mother, Mrs. W. W. Dellinger, of Chattanooga; two brothers and six sisters. Funeral services were held at the First Baptist Church with Dr. Bunyan Stephens and the Rev. P. M. Minter officiating. Burial was in Myrtle Hill Cemetery, Rome.

* * *

Dr. John Jesse Cooper, aged 82, widely known and beloved physician of Cedartown and Polk County, died in a Cedartown hospital August 5, 1949. Dr. Cooper was born in Paulding County and graduated from Lincoln Memorial University Medical Department, Knoxville, Tenn., 1893, and returned to Dallas to practice medicine. Two years later he took postgraduate work in New York City and in 1898 moved to Cedartown to practice medicine. He is a member of the Polk County Medical Society, the Medical Association of Georgia, and a fellow of the American Medical Association. He was a Mason, Knights Templar, Shriner, Woodmen of the World, and a charter member of the Cedartown Odd Fellows Lodge. He was also a member of the First Baptist Church. Survivors include his wife, the former Miss Emma Anderson, of Dallas; a grandson, John H. Moore; a brother, T. H. Cooper, Powder Springs, and several nieces and nephews. Funeral services were held at the First Baptist Church, Cedartown, with Dr. Walter L. Moore, Waycross, former Cedartown pastor, officiating. Burial was in Greenwood Cemetery, Cedartown.

* * *

Dr. James A. Sewell, aged 80, retired Atlanta physician, died at a private hospital, September 11, 1949. Born in Newnan, Dr. Sewell had lived in Atlanta 35 years. He was a graduate of Southern Medical College now Emory University School of Medicine, Atlanta, in 1893. Dr. Sewell, a practicing physician for the past 40 years, was prominent in the field of research on typhoid and malaria fever. He was a Mason and a member of the Central Presbyterian Church. Surviving are two daughters, Miss Maude H. Sewell and Mrs. Frank H. Posey, both of Atlanta; two sons, Crawford H. Sewell, Atlanta, and James T. Sewell, Ben Hill; one sister, three brothers and six grandchildren. Funeral services were held at Spring Hill with Dr. Stuart Oglesby officiating. Burial was in West View Cemetery, Atlanta.

* * *

Dr. John Henry Steed, aged 73, prominent Dalton physician, died at his home August 18, 1949. Dr. Steed was a native of Murray County, having been born and reared a few miles north of Spring Place, where he practiced medicine some years before moving to Dalton. He graduated from Georgia College of Eclectic Medicine and Surgery, Atlanta, in 1902, and had practiced medicine for 47 years. He was a member of the Whit-

field County Medical Society, the Medical Association of Georgia, and a fellow of the American Medical Association. Surviving are his wife, Mrs. Myra P. Steed, of Dalton; a son, Dr. John H. Steed, Jr., Dalton, and two sisters, Miss Sybil Steed and Miss Nettie Steed, both of Columbia, S. C. Funeral services were held at the residence with the Rev. C. M. Lipham and Dr. J. L. Clegg officiating. Burial was in West Hill Cemetery, Dalton.

* * *

Dr. G. W. Tootle, aged 79, prominent Glennville and Tattnall County physician, died at his residence August 15, 1949. Dr. Tootle graduated from Emory University School of Medicine, Atlanta, in 1895, and had practiced medicine for over 50 years. He was a member of the Tattnall County Medical Society, the Medical Association of Georgia, and a fellow of the American Medical Society. It has been said of Dr. Tootle that he never failed to make a call regardless of the hour or the chances of reimbursement. His passing is a great loss to Glennville. He is survived by his wife, Mrs. Ida Tootle, Glennville; one son, J. Slater Tootle, Glennville; a sister, Mrs. Emma Alexander, Reidsville, and a grandson, Dr. George Tootle, Atlanta, who became a doctor exactly 50 years from the date his grandfather began the practice of medicine. Funeral services were held at Rimes Chapel in Glennville, with Dr. William Huck, of Atlanta, officiating. Burial was in the Glennville City Cemetery, Glennville.

VD DANGER DECREASING FOLLOWING WORLD WAR II

Incidence of venereal disease—scourge of most nations of the world—is rapidly decreasing and soon may be controlled, seven foreign health authorities reported recently.

Dr. Paul V. Marcussen, of Copenhagen, Denmark, chairman of the Syphilis Study Commission of the World Health Organization, cited the reason:

"Better treatment methods and public education."

Dr. Marcussen also pointed out that the war's end had caused VD incidence to drop sharply.

"Incidence was high," he said, "during the last war. It has been so in every war in every country all over the world."

Dr. Marcussen proudly reported that Denmark has one of the lowest VD rates known—less than 2.5 cases per 10,000 population. (An estimated eight percent of all Georgians have VD.)

Besides Denmark, France, England, Yugoslavia, Finland, India and Guatemala are represented on the Commission, which will inspect Georgia health and VD control facilities for several days.

The group will visit the State rapid treatment center at Alto, Georgia was selected as a "studying ground" because of its outstanding record in reducing syphilis and other venereal diseases.

Dr. N. Jungalwalla, of New Delhi, India, said penicillin—considered the quickest and most effective treatment for syphilis in most countries—was in short supply in India. He blamed the relatively high VD rate in urban areas of India on lack of education and a low standard of living.

Dr. E. I. Grin, of Sarajevo, Yugoslavia, credited the United Nations with obtaining penicillin for treating VD in his country—which he proudly said was "now decreasing." He said he was interested in learning how Georgia conducts its mass blood tests to uncover unknown cases of syphilis.

Dr. S. W. Laird, of Ipswich, England, said highest incidence of VD in his country occurred in the immediate postwar period—but he said it has been "dropping steadily since 1946." He attributed the decline to "more stable domestic conditions and widespread availability of adequate free treatment."

Prof. Pierre Joulia, of the University of Bordeaux,

France, said syphilis had declined in his country since the abolition of legalized prostitution in 1946.

Dr. Juan M. Funes, of Guatemala City, Guatemala, said syphilis was prevalent among the Indians in illiterate sections of Guatetama, but he said current control programs have had "promising results."

Dr. Tauno Putkonen, of Helsinki, Finland, said his country's greatest VD problem was control of congenital syphilis. He said all pregnant women were given free blood tests on a voluntary basis to prevent the birth of syphilitic children.

The international authorities were greeted here by Dr. T. F. Sellers, Director of the State Health Department, and Richard H. Lyle, Regional Director of the Federal Security Agency in Atlanta. They will be interviewed over WCON by Don Elliott about their visit to Alto. The transcribed broadcast is scheduled for 10:45 p.m. Sunday.—Katherine Barnwell, *The Atlanta Constitution*, Sept. 23, 1949.

LINKS DEAFNESS TO BODY'S PRODUCTION OF SEX HORMONE

Deafness of a type that affects more than 10,000,000 persons in the white population of the United States appears to be related to fluctuations in the body's production of the female sex hormone, estrogen, says a New York physician.

The condition, known medically as otosclerosis, is characterized by formation of spongy bone in a section of the inner ear.

"Certain sex-linked episodes frequently coincide with the onset or an increase of deafness caused by otosclerosis," Dr. Edmund Prince Fowler writes in a current issue of *Archives of Otolaryngology*, published by the American Medical Association.

"Estrogens are manufactured by both sexes, but in different proportions. Growth, pregnancy, lactation, and the menopause are periods of changing activity in the sex glands, often accompanied with disorders and diseases of bone coincident with known changes in estrogen levels.

"And, since the menstrual cycles likewise involve coincidental changes in estrogen levels, it is suggested that variations in estrogens may be one of the reasons for the distinctly higher incidence of otosclerosis in women than in men (the ratio is about two to one), and for the decidedly higher incidence of activity and variations in the lesions during the years of greatest activity of the sex glands.

"It is well known that otosclerosis frequently increases during any of the longer periods mentioned and often after emotional upsets related to them.

"Negroes are noticeably less susceptible to otosclerosis than are white persons. Metabolism in the Negro is normally more stable and therefore less disturbed by the sex hormone tides than in the white person.

"Administration of estrogens has been observed to cause replacement of the marrow cavities of the femurs (thigh bones) of mice, birds, dogs, and guinea pigs with bone. Studies in many laboratories have shown that essentially similar laws of inheritance and comparable types of endocrine action exist in birds and man.

"The thesis is advanced that estrogen is so closely associated with calcium and bone metabolism that it is permissible to assign to it a part in the causation of otosclerosis, at least in persons with receptive hereditary backgrounds, and perhaps it plays a major part in the changing activity of otosclerosis lesions."

Beg your pardon. The next annual session of the Medical Association of Georgia will be held in Macon April 18-21, 1950. Remember the month and the dates. Make your hotel reservations now, please.



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(Brand of dimenhydrinate)

has been accepted by the Council on Pharmacy and Chemistry
of the American Medical Association for the prophylactic and
therapeutic relief of motion sickness.

*TRADEMARK OF G. D. SEARLE & CO.



BOOKS

P-Q-R-S-T. A Guide to Electrocardiogram Interpretation, by Joseph E. F. Riseman, M.D., second edition, The MacMillan Company. While this little book is intended for the beginner whose aim is to seek out essential facts in interpreting electrocardiograms, it also can be useful to those persons who desire information when viewing the various abnormal patterns of electrocardiograms. The book is so compact it can well be carried in the physician's satchel, along with one or two other small books. The price is \$3.50, and the book is well worth it.

* * *

Monetary Management, by E. A. Goldenweiser; This book presents in brief form the essential elements of monetary management in the United States from 1914 to 1948. It indicates the role played by money in the economy, and the powers of monetary authorities in regulating the volume, availability, and cost of money. It reviews the experience of American monetary management since the establishment of the Federal Reserve System in 1913, and outlines the problems that confront it at the present time. In this study Dr. Goldenweiser looks at the immediate requirements of monetary policy in relation to the maintenance of high stable production and employment. Here is a clear presentation of the thought that has been given to curbing, through a more elastic currency, rapid credit contractions as well as speculative booms. The means available to the Federal Reserve System in working toward this end are described. This book gives you an authoritative evaluation of the position of a central reserve banking system in relation to the conditions, domestic and worldwide, that prevail today and may be anticipated for several years ahead. *Monetary Management*, is one of the studies carried out as part of the research program of the committee. By analyzing the problems and choices that have faced the Federal Reserve in its 35 years of operation, it provides the layman with a comprehensive inquiry into the monetary policies needed for a sound economy. Published by McGraw-Hill Book Company, Inc., 330 West 42nd Street, New York 19, New York. Price \$2.75.

* * *

Photo-Radiography in Search of Tuberculosis, by David W. Zacks, M.D. The findings of twenty years experience in tuberculosis case finding programs with the use of x-ray are incorporated in this monograph. Particular emphasis is placed on the use of photoradiographic equipment, available since 1943. The plan described for the control of pulmonary tuberculosis by clinics, surveys, and conferences is based on widespread community organization and adequate diagnostic facilities.

ties. In addition to the immediate results obtained by the early diagnosis, the data obtained and the follow-up records can be used as the basis for research in the pathogenesis, treatment and prognosis of the disease. The present volume gives clear attention to organization details and outlines the responsibility of each agency, committee and individual concerned. It is well illustrated with over two hundred fifty photoradiograms showing the normal chest, the various manifestations of pulmonary tuberculosis, and abnormalities and anomalies. Published by The Williams & Wilkins Company, Mt. Royal and Guilford Avenues, Baltimore 2, Maryland. Price \$5.00.

Beg your pardon. The next annual session of the Medical Association of Georgia will be held in Macon April 18-21, 1950. Remember the month and the dates. Make your hotel reservations now, please.

WANTED — Graduate class A medical school, member good standing medical association, for mental hospital. Age limit 60. Experience in psychiatry desirable, but not essential. Nice residences. Two colleges in immediate vicinity. Submit full information, three references and recent small photograph in first letter. Address, P. O. Box 325, Milledgeville, Ga.

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Stone Mountain, Ga.**

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DIHYDROSTREPTOMYCIN: ITS USE IN UROLOGIC PROBLEMS IN GENERAL PRACTICE

JAMES H. SEMANS, M.D.
Atlanta

The introduction of the compounds, streptomycin and the less toxic dihydrostreptomycin, implies a new responsibility for both the urologist and the general practitioner. Urinary infection not controlled by other bactericides has shown response to these two antibiotics. However, toxicity and drug resistance limit the indications for these otherwise valuable agents. Clinical judgment is essential in their successful administration. Therapeutic failures will usually be explained on the basis of undiagnosed calculi or obstruction, undrained pus, drug resistant bacteria, or the unjustified risk of toxic reaction with continued treatment.

Formerly infection of the urinary tract was treated by nonspecific antiseptics, after the elimination of stone and urinary stasis. Today, as before, the removal of stone and obstruction is of paramount importance. The new departure is the necessity for prompt and adequate use of the appropriate antibiotic.

Selection of the proper medication depends upon identification of the bacteria in the urine. Then, only the drugs effective against the organism need be tried. Since

these infections are frequently managed in general practice, diagnostic techniques must be suitable as office procedures.

Where laboratory facilities are available, the bacteria causing the infection can be identified by culture of the urine. The effect on the growth of the organism in culture media which contains increasing concentrations of dihydrostreptomycin can thus be determined. This procedure is valuable in certain instances, but not essential in most cases.

The office procedure of preparing a Gram stain of the sediment of centrifuged urine is more applicable to general practice. The specimen from the male patient can be a voided one. Catheterization of the female patient is essential. The identification of Gram negative bacilli, if sulfonamides have not been effective, is an indication for giving dihydrostreptomycin.

The Gram stain is also valuable in preventing recurrence of urinary symptoms. It has real importance for those patients who have progressive loss of renal function because of recurrent severe pyelonephritis. Its use routinely in patients known to have had urinary tract infection will often demonstrate the organism before pyuria and debilitating symptoms occur. Early treatment, in these instances, may prevent the clinical attack.

The value of this routine can be estimated for each individual by the number of positive examinations when no symptoms are present, and by the decrease in severity of each succeeding attack.

The dosage of dihydrostreptomycin has not yet been accurately determined for uri-

Acknowledgment is made to Merck and Co., Inc., Rahway, N. J., for the allotment of dihydrostreptomycin for these clinical studies.

Read before the Medical Association of Georgia in annual session, Savannah, May 11, 1949.

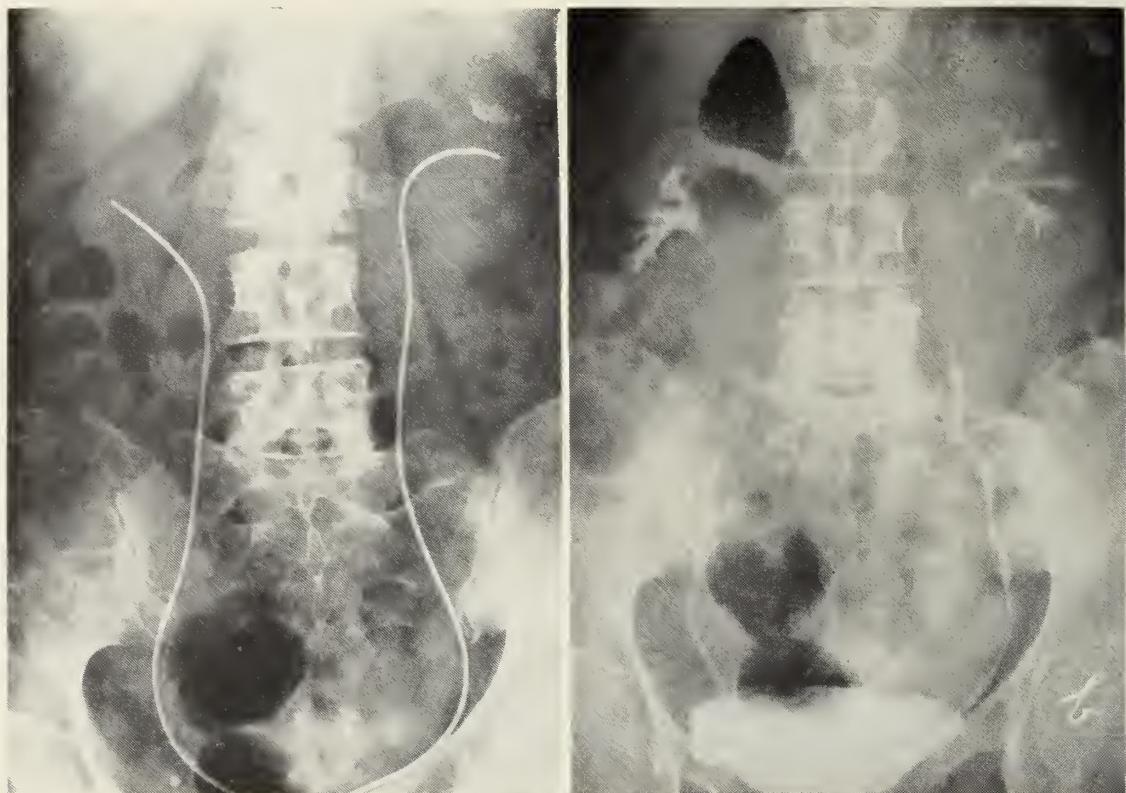


Figure 1. Case 1, P. H., X-ray D-2428. a. X-ray film of the abdomen showing no calculi; b. retrograde pyeloureterogram. No obstruction.

nary tract infection. For this reason the same daily amounts as those used for streptomycin were given to 26 patients. One half gram every 12 hours, for 5 to 7 days, was considered sufficient for most infections caused by Gram negative bacilli. *B. pyocyanus* is the exception and probably requires twice this dosage, as for streptomycin, even on the first day of treatment. If no stones, undrained pus or obstruction are present, susceptible organisms will usually be destroyed. Toxic reactions are not to be expected with this dosage. However, pre-existing renal damage may hasten the onset of toxicity, because of abnormally slow excretion of the drug in the urine and its rapid accumulation in the tissues. This is illustrated in Case 3.

In this series, the drug was usually given by a nurse or medical assistant. However, it was frequently necessary that the patient give the injection himself. This was permitted only after performance under super-

vision proved that the patient was competent in avoiding both contamination of the apparatus and accidental injection into a vein. Administration was tolerated best intramuscularly.

Resistance of the bacteria to dihydrostreptomycin may produce a therapeutic failure. If the organism remains in spite of treatment, the laboratory study described above is indicated. The bacteria should be first grown in pure culture. The sensitivity test, run on culture media, will then show the concentration of dihydrostreptomycin necessary to prevent growth of the organism. If the effective level is higher than can be acquired by safe dosage, the drug is no longer indicated. Drug fastness, though frequent, is not inevitable. One patient with bacilluria did not develop resistance even after 4 courses of antibiotic therapy. These consisted of streptomycin and dihydrostreptomycin. The second course of dihydrostreptomycin was successful in sterilizing



Figure 2. Case 3, C. W. L., X-ray 35840. Upper plain film (a) shows bilateral nephrocalcinosis. The calcium is deposited in the region of the calices. Twelve calculi were removed from the right ureter through the cystoscope. In the lower half of the illustration (b) a ureteral calculus is partially engaged in the basket of the extractor.

the urine.

Report of Cases

Case 1. P. H., No. 106,793, a 54 year old white, married woman was first admitted to the hospital on December 5, 1948. She had urinary symptoms of frequency and dysuria of 16 years duration. A stone had been removed from the left kidney 6 months previously. The patient had received several courses of sulfadiazine and penicillin, and 1 course of streptomycin. The dosage was not known.

The plain x-ray film and retrograde pyelogram showed a normal urinary tract (Figure 1). Guinea pigs, injected to demonstrate acid-fast bacilli, were normal. However, Gram negative bacilli were present in the urinary sediment and were grown in the specimens collected from each kidney and from the bladder. This finding was confirmed in urine obtained by catheter on 5 occasions during a period of 3 months. Tests for sensitivity showed the organism, identified as *Aerobacter aerogenes*, to be inhibited still by a concentration of as little as 1 microgram of streptomycin per cubic centimeter of culture media.

Streptomycin was given in daily dosage of 1 gram for 5 days. Since the organism could again be found in the urine at the end of this time, the course was repeated after an interval of 1 month. This time dihydrostreptomycin was used.

Since the bacteria persisted, and yet were not resistant to dihydrostreptomycin, a second course of the drug was given, again for 5 days. Bacteria were absent from the urinary sediment for the first time in 5 months of treatment. After 1 more month of observation, during which she received no bactericides, the patient reported that she had had no urinary symptoms. Bacteria were still absent from the urinary sediment. Since no other therapy had been used and since the infection had been chronic, it seemed reasonable to assume that the anti-

biotic was responsible for the final therapeutic success.

Case 2. Another patient developed marked resistance to dihydrostreptomycin. Sensitivity tests showed that growth continued in a concentration of as much as 10 units of dihydrostreptomycin per cubic centimeter of culture media.

P. H., No. 102,815. The patient, a 44 year old man, had had transurethral resection of the prostate 2 weeks previously. Epididymitis had occurred on the left side 5 days after operation. The organism, *Aerobacter aerogenes*, persisted in the urine, although the bladder emptied itself.

Three courses of dihydrostreptomycin were given. In each, the dosage was 1 gram daily for 5 days. The interval between courses was 3 and 6 days, respectively. *Aerobacter aerogenes* was still present.

Sensitivity tests were made. The antibiotic was discontinued when it was shown to be ineffective, even in concentration of 10 units of drug per cubic centimeter of culture media. The infection was treated by bed rest and elevation of the scrotum for 3 weeks. The epididymitis gradually subsided. Culture of the urine 3 weeks later, however, again showed *Aerobacter aerogenes*.

Case 3. C. W. L., No. 193,661. The third patient demonstrates the toxicity of streptomycin. It is reported here because of the unexpectedly early appearance of vestibular damage on the eighth day of treatment in the presence of pre-existing renal damage. This was manifested by vertigo and difficulty in walking. In this group of patients, there has been no similar experience with dihydrostreptomycin given in the same dosage. However, eighth nerve disturbance, renal irritation, fever, skin eruptions and facial paresthesias have been reported, when therapy has continued for longer periods than have been found necessary for urinary infection.

The patient was a 34 year old married woman, who was admitted because of a stone in the right ureter. *Aerobacter aerogenes* was present in the urine. No acid-fast bacilli were found. It was significant that the kidneys excreted only 20 per cent of phenolsulfonphthalein in 2 hours.

The illustration (Figure 2A) shows marked calcification of both kidneys. Two stones can be seen in the right renal pelvis.

Efforts to remove the calculus in the right lower ureter had been formerly unsuccessful. Cystoscopy showed a submucosal tunnel just within the ureteral orifice. This deflected the stone extractor from the ureter into the bladder. This channel was opened with cystoscopic scissors. The instrument could then be passed into the ureter through the new orifice. Figure 2 shows the stone partially engaged in the instrument. One day later both the calculus and the extractor were removed.

Because of the presence of *Aerobacter aerogenes*, streptomycin was given in daily dosage of 1 gram. On the eighth day the patient complained of dizziness and awkwardness in walking. The drug was discontinued immediately. Improvement was slow. The patient was able to drive a car only after 4 months. She still had difficulty in walking in the dark. Ocular compensation, rather than full recovery of sensation in the eighth nerve, had occurred.

Case 4. S. J. I., No. 961. The last case illustrates the importance of eliminating foreign bodies, such as drains, in the effective use of dihydrostreptomycin. The antibiotic failed to eliminate infection while a nephrostomy tube was in place. A second course of treatment, following removal of the tube, resulted in the return of sterile urine.

The patient, 24 years of age, was admitted because of drowsiness and pain in the left flank. The illustration (Figure 3) shows a large wedge-shaped stone obstructing drainage from the left renal pelvis. There were more than 50 small shadows counted in the plain x-ray film. The patient was uremic and acidotic. The non-protein nitrogen had risen to 108 milligrams per cent. The carbon dioxide combining power was low, 46 volumes per cent.

These findings were explained by obstruction of the

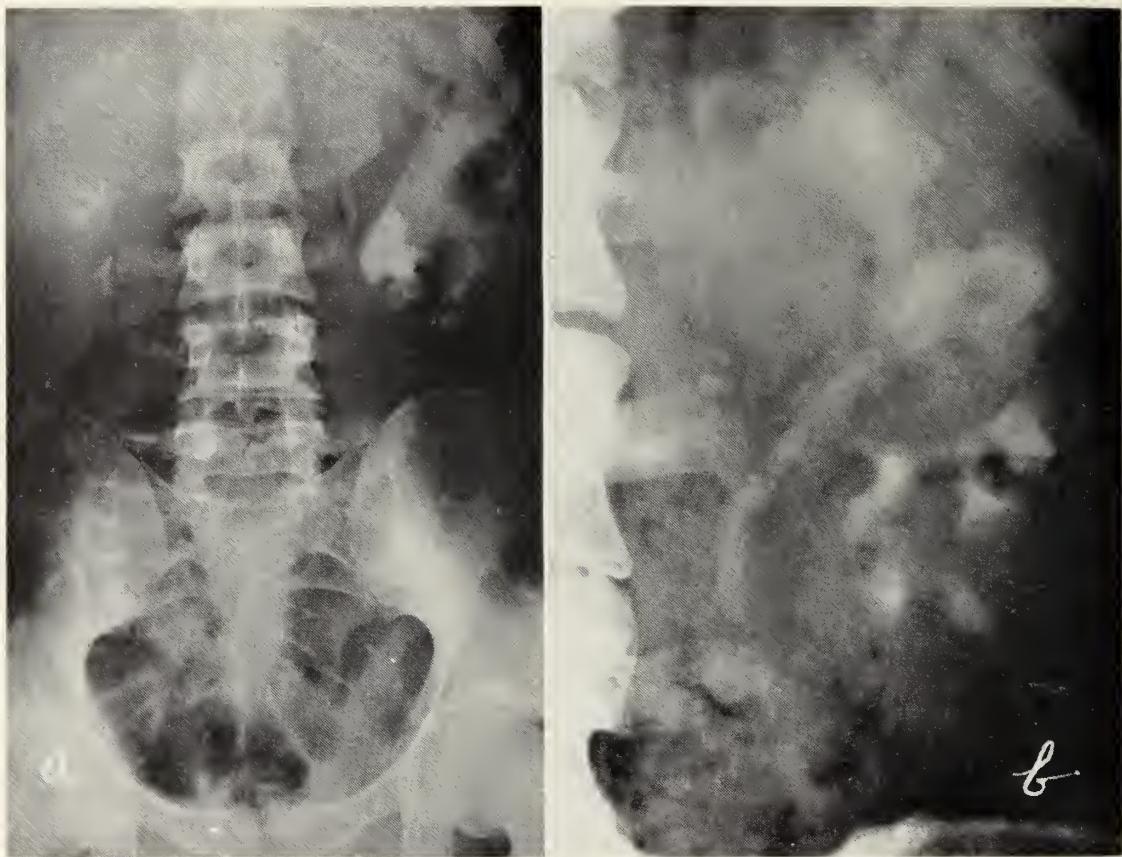


Figure 3. Case 4, S. J. L., X-ray 27599. a. Bilateral pyelogram. Left kidney contains multiple calculi. No fluid could be injected beyond the large wedge-shaped stone obstructing the left ureteropelvic juncture. Right kidney shows atrophy and dilation of the upper calices. b. Detail of intravenous pyelogram on left side after nephrolithotomy. The calices of the upper half are larger than normal.

left kidney by stone, and atrophy of the right kidney, shown also in Figure 3A.

The large stone, and as many of the small ones as possible, were removed at operation on February 28, 1949. Approximately 20 discrete calculi passed spontaneously without colic after operation. The patient was ambulatory at that time. A nephrostomy tube was left in place for 1 month.

Before operation the urine contained no bacteria. During the first 2 post-operative weeks, the urine became infected with *ferrobacter aerogenes*, in spite of early administration of both sulfadiazine and dihydrostreptomycin.

After the nephrostomy tube was removed, dihydrostreptomycin was given again for 5 days. This time the urine became sterile. Microscopic examination of the urinary sediment, 2 weeks after the last dose of the antibiotic, showed no white blood cells and no organisms. The post-operative pyelogram is in Figure 3B.

The future management of this case will include frequent examination of the urinary sediment by Gram stain, whether or not symptoms are present. Any bacteria found will be identified by culture and promptly combated with the appropriate antibiotic. The frequent recurrence of stone in the presence of infection is well known.

Summary

- Dihydrostreptomycin is a less toxic compound than streptomycin, and is a new and important addition to the treatment of urinary tract infection. Its principal limi-

tations are mentioned.

- Toxicity and drug resistance of this antibiotic are discussed.

- The Gram stain is recommended as an aid in general practice for selection of patients for treatment, where laboratory facilities are not available.

- Cases are cited to illustrate the clinical results to be expected.

CHILD'S FIRST TEETH MAY DETERMINE FACIAL CONTOUR

A child's future appearance may depend on whether cavities in his temporary teeth are filled promptly, points out an article in the current (October) issue of *Hygeia*, health magazine of the American Medical Association.

Neglected decay eventually breaks down the teeth and spaces are created in the jawbone, explains the writer, Estelle Bond, Boston.

The teeth then may shift unnaturally, and, since the jaw is still growing, even the child's facial contour may be changed.

Healthy baby teeth may mean the difference between a robust and a sickly youngster, too, she says. Cavities that are allowed to go unfilled may develop into a source of infection for the whole body.

Decay also interferes with chewing food. If a child cannot chew properly, he becomes malnourished.

NEOPLASTIC DISEASE OF THE URETER

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Primary tumor of the ureter is of sufficient frequency to deserve our awareness, and its diagnosis often challenges our diagnostic acumen. One may be easily misled in the diagnosis, particularly when the condition is coincident with other disease which produces hemorrhage, such as prostatic hypertrophy. Prior to 1948 approximately 198 cases of primary carcinoma of the ureter and less than one half that number of so-called "benign" tumors of the ureter had been reported. About 36 per cent of these were diagnosed pre-operatively. We are presenting six private cases, representing an interesting variety, all of which were diagnosed before surgery.

Tumors of the ureter may be divided into two main histologic groups. One group is epithelial in origin, namely: 1—papillary, benign; 2—papillary, malignant, and 3—non-papillary squamous or epidermoid carcinomas. The other group consists of those rare growths which originate from other layers of the ureteral wall such as myoma, hemangioma, sarcoma, fibrolipoma, neurofibroma, benign or malignant. The most common type of primary ureteral tumor is papillary carcinoma.

Ureteral malignancies have a higher mortality rate than those of the kidney, pelvis or bladder, although they are histologically similar. The thin ureteral wall with its abundant blood and lymphatic supply prob-

ably contributes to the early and widespread metastasis of these growths.

Blood in the urine and pain in the affected side are the most common symptoms. In about 45 per cent of cases a hydronephrotic kidney caused by the obstructing growth can be palpated. In a large percentage of cases blood may be seen coming from the ureteral orifice and in some instances the tumor itself may be seen protruding through the orifice. In the majority of patients obstruction to the passage of the ureteral catheter is encountered at the level of the tumor.

The diagnosis is dependent upon good pyeloureterograms. Hydronephrosis and hydroureter down to the obstructing growth are usually present. The possibility of ureteral calculus and ureteral stricture should be considered. In ureteral tumor the filling defect seen in the ureterogram usually has a margin which is irregular in appearance, in contrast to the filling defect of a stricture which usually has a smooth, conical shape, or the feather-edged filling defect produced by extra-ureteral pressure. In questionable cases, serial ureterograms may be of value. The possibility that the growth may be an implant from a similar one in the renal pelvis must be kept in mind.

Complete removal of the kidney, ureter and a cuff of the bladder wall adjacent to the ureteral orifice is the treatment of choice and in the great majority of these cases offers the only hope of cure. The condition of the opposite kidney must be determined prior to surgery. When the preservation of the kidney becomes imperative due to an absent or a poorly functioning opposite kidney, conservative surgery is indicated. If the growth is in the lower ureter, a partial ureterectomy and uretersigmoidostomy or cutaneous ureterostomy may be done. If the growth involves the upper ureter, a total ureterectomy and permanent nephrostomy are indicated. If the growth is benign the entire ureter may be preserved by simply



Figure 1. Case 2. Pulmonary metastases.



Figure 2. Case 3. The tip of the catheter is shown at the point of obstruction in the right lower ureter.

removing the tumor, as reported by Vest.

REPORT OF CASES (Cases 1 to 6 inclusive)

Mrs. A. M., a 75 year old white female, was first seen in October 1941 with a chief complaint of gross, intermittent, hematuria of 6 weeks duration, and attacks of pain in the right flank referred to the right lower abdomen. Examination revealed moderate enlargement of the right kidney. Cystoscopic examination revealed gross blood from the right ureteral orifice. The ureteral catheter met impassable obstruction at 12 cm. in the right ureter. The ureterograms failed to show contrast media beyond the point of obstruction. Excretory urograms showed a non-functioning right kidney and a good left kidney. On December 10, 1941 a right nephroureterectomy was done. A very hard tumor of the mid-portion of the right ureter was found with no apparent involvement of adjacent tissues. Pathologic report was "epidermoid carcinoma of the ureter, grade 3." The patient made an uneventful recovery and died from a cerebral accident 5 years later without any apparent recurrence or metastasis.

Mrs. J. B. D., a white female, aged 49, was referred because of a small vesico-vaginal fistula. On cystoscopic examination bloody urine was seen coming from the left ureteral orifice. No history of previous hematuria or of pain referable to the kidney or ureter was given. Pyelographic study revealed a deformity consistent with tumor. Nephrectomy was done in May 1945.



Figure 3. Case 4. The tip of the catheter is seen at the point of obstruction in the right lower ureter. No contrast media passes the obstruction.



Figure 4a. Case 5. A filling defect is shown in the ureterogram about the junction of the middle and lower thirds on the right side.

The pathologic diagnosis by Dr. John Funke was "leiomyosarcoma." On July 15, 1946, 14 months later, she returned complaining of intermittent hematuria of several weeks duration. Cystoscopic examination showed a newgrowth protruding through the left ureteral orifice. On July 20, 1946, the ureteral stump and a collar of bladder wall were removed surgically. The pathologic report by Dr. Funke was as follows: "This is



Figure 4b. Case 5. The pathologic specimen showing the arrow pointing to the portion of the ureter enlarged by the tumor.



Figure 4c. Case 5. The kidney and ureter opened showing the tumor in the ureter and none in the kidney.



Figure 4d. Case 5. Showing patient with low midline and right flank incisions healed.



Figure 5. Case 6. The filling defect produced by the growth is seen in the left upper ureter. Left hydronephrosis was caused by blood clots.

a malignant growth in the ureter. It is a sarcoma. Some sections show a resemblance to a neurogenic sarcoma rather than a leiomyosarcoma.¹ This case is unique in that the pathologic sections of the growth in the ureter indicated a type of growth different from that found in the kidney. About 6 months after she left the hospital she died at home from generalized metastases.

Mrs. J. S. B., a 62 year old white female, was seen November 9, 1945 with a chief complaint of hematuria, which had appeared a few times since March 1944. She had been treated elsewhere for a right ureteral stricture over a period of 18 months. On the last attempt, about one month prior to admission to the hospital, her physician failed to get an obstruction in the lower third of the right ureter. On two attempts, it was impossible to make a right pyeloureterogram because of obstruction in the lower third of the right ureter. Excretory uro-

grams showed a non-functioning right kidney and a normal left kidney. A few days later a right nephroureterectomy was done. A very dense tumor of the lower third of the right ureter was found adherent to peritoneum and pelvic wall. Pathologic report was "epidermoid carcinoma of ureter grade 2." She returned home and died 8 months later of recurrence in the right lower quadrant and metastasis.

Mrs. B. S., a 79 year old white female, gave a history of gross hematuria which appeared March 15, 1946. Examination revealed a smooth nodular mass in the right flank, apparently the kidney. On cystoscopic examination the blood was seen to come from the right ureteral orifice. Obstruction to the passage of the ureteral catheter was felt about 4 cm. from the bladder. The catheter could not be passed by the obstruction and the ureterogram showed that no contrast media had passed beyond that point. Excretory urograms showed a non-functioning right kidney and a satisfactory function of the left kidney. On March 20 a right nephroureterectomy was done including a cuff of the bladder. The pathologic report was "carcinoma of the ureter, grade 1 or 2, transitional cell type and hydronephrosis." The patient experienced profound shock and died the night after the operation in spite of blood transfusions and supportive therapy.

Mr. D. O. C., a 62 year old white male, was seen in consultation with Dr. S. J. Sinkoe in October 1948 because of gross hematuria and right renal colic of one week's duration. Examination revealed the blood to come from the right ureteral orifice. A catheter was obstructed at 10 cm. from the bladder. A ureterogram was made by forcing media past the obstruction and showed a large irregular filling defect at that point. A moderate hydronephrosis and hydroureter were present above the obstruction. In spite of his being an arrested case of pulmonary tuberculosis and of his having suffered a previous attack of coronary thrombosis, a right nephroureterectomy was done following which he suffered a cardiac complication but he made a complete recovery and has remained well. Pathologic report was "papillary carcinoma, grade 1, and chronic pyelonephritis, slight."

Mrs. J. T. W., a 75 year old white female, was seen April 21, 1949, because of gross hematuria and pain in the left flank. Examination revealed obstruction to the passage of the catheter in the left upper ureter. About 50 cc. of old blood were aspirated from the left kidney pelvis. Retrograde pyeloureterograms showed a left hydronephrosis and hydroureter and a filling defect of the left upper ureter. Excretory urograms showed a good right kidney and a non-functioning left kidney. On April 30, 1949, a left nephroureterectomy was done which was followed by a good recovery. The pathologic examination revealed "papillary carcinoma of the ureter grade 3, and pyelonephritis, chronic, left."

Summary

1. Primary tumor of the ureter occurs with sufficient frequency to merit our awareness.
2. We have reported six interesting cases to illustrate some of the important symptoms and diagnostic points.
3. The effectiveness of surgical management has been discussed.

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EXSTROPHY OF THE URINARY BLADDER: SURGICAL TREATMENT

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Exstrophy of the urinary bladder may be classed as one of the most distressing of the congenital anomalies. It is that condition in which there is an absence of development of the anterior wall of the bladder and a corresponding portion of the lower anterior abdominal wall (Figure 1). As a result there is a protrusion through the defect of an uneven reddened and easily bleeding posterior bladder wall including the trigone; the ureteral orifices and intervening ridge may be readily visible or may be hidden beneath mucosal folds. Cornification of the exposed epithelial lining of the exstrophic bladder is common. It often includes numerous glandular structures which develop from enteric inclusions. Chronic inflammatory changes are the rule, and as this passes many Russell bodies may appear among the infiltrations of mononuclear cells and leukocytes (Figure 2 A & B). The demarcation between the adjacent skin and mucosa of the posterior vesical wall is marked and it is under this line that one feels a firm ridge of tissue, not unlike a hernial ring, when the protruding mass is reduced. The surrounding tissues are kept continuously wet and inflamed due to in-



Figure 1. Complete exstrophy of the urinary bladder in which there is an absence of development of the anterior wall of the bladder and a corresponding portion of the lower anterior abdominal wall.

terval ejection of urine from the ureteral orifices.

Incidence

Fortunately, exstrophy of the bladder is a rare anomaly. Statistics show wide variations but probably the most accurate figure is between one in forty thousand and one in fifty thousand. It is encountered more frequently in the male than in the female (8 to 1). It is unique to man, never having been observed in the lower animals.

Etiology

There are three main groups of theories: mechanic, pathologic and embryologic. The first theory, credited to Bon and Duncan (1804)⁴ holds that exstrophy is the result of intrauterine rupture of a completely formed bladder, adhesions forming to the borders of the split. Adherents to that view are few.

Keith⁵ advanced the pathologic theory that infections or irritation produce a sep-

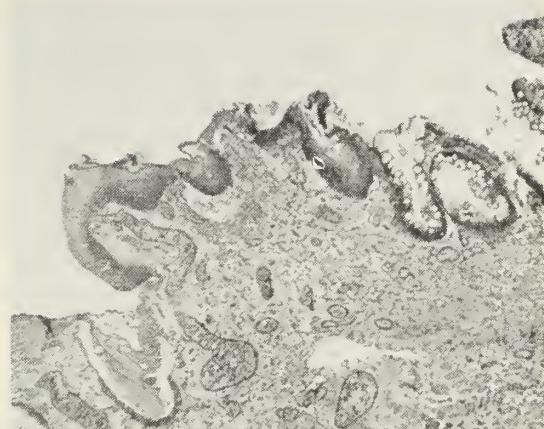


Figure 2a. Section showing squamous metaplasia and cornification of bladder epithelium.

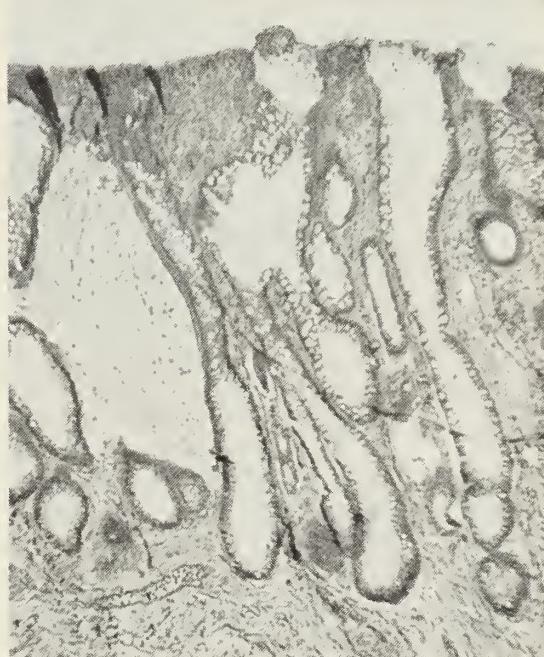


Figure 2b. Demonstration of mucinous glandular structures which probably developed from enteric inclusions.

aration of the lateral walls of the caudal portion of the embryo, resulting in the typical defect of exstrophy as growth progresses.

Of the numerous embryologic theories, probably the most generally accepted is the view that maintains the mesoderm fails to develop the anterior abdominal wall between the umbilicus and genital tubercle because of extension or forward displacement of the cloacal membrane. The provertebral mesoderm cannot grow into the hiatus and the recti and pubes will remain separated. This, in substance, is Viallaton's

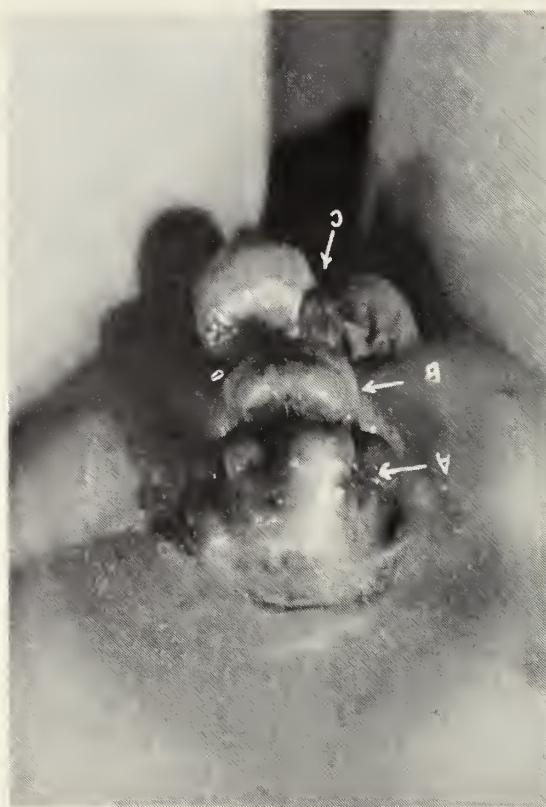


Figure 3. Complete bladder exstrophy (a) in a 12-year-old male. Note the small, transversely flattened epispadic penis (b), with an associated bifid serotum (c).



Figure 4. Complete bladder exstrophy (a) in the female with an associated completely cleft clitoris (b), situated at the upper end of rudimentary labia (c).

theory⁶.

Pathology

The malformations may be complete or incomplete, the latter presenting a defect of either the upper (fissura vesicae superior) or lower (fissura vesicae inferior) portion of the anterior bladder wall. The urethra is complete in these cases and the symphysis pubis is united.

In the complete type, which is by far the most frequent, the symphysis pubis is absent and the pubic bones are widely separated, the intervening space being filled with connective tissue. The separated recti muscles find their insertion in the pelvic bones by passing obliquely outwards. In the past it was thought that there was always a co-existent epispadias. Higgins³, however, disproved this by citing a case with complete exstrophy of the bladder with a normal penis.

In the male the penis is small, flattened

transversely, and epispadias is usually present (Figure 3). Cryptorchidism is frequently seen; the serotum may be bifid or normal. The prostate and seminal vesicles are either atrophic or absent.

In the female the urethra appears as an open sulcus or may be entirely absent; the labia are rudimentary. The clitoris is usually completely cleft, its halves being situated at the upper ends of the labia minora (Figure 4). There is likely to be a double vagina and bicornate uterus.

Other congenital abnormalities which may be associated are harelip, cleft palate, spina bifida, inguinal hernia, prolapse of the rectum, and atresia ani with intestinal openings directly on the exstrophied parts.

The umbilicus at times appears to be absent but this is due to the fact that it is situated lower than usual on the abdominal wall and is hidden in the scar tissue at the



Figure 5. Postoperative picture showing repair of defect following cystectomy. Compare with Figure 3.

superior border of the exstrophied bladder mucosa.

Complications of Exstrophy of the Bladder

The offensive urinous odor, constant wetting of the clothing, local irritation and 'waddling' type gait lead the afflicted into varying psychologic difficulties.

Because of the exposed position of the ureteral orifices, ascending infection is a frequent complication. Stricture formation at the uretero-vesical junction may occur, with the passage of time, resulting in dilatation of the system above. It is for these reasons that approximately fifty per cent of the cases die in early childhood. Few pass the twentieth year without operation.

Malignant change of the bladder mucosa occasionally develops. Judd and Thompson⁷ found 18 reported cases and added two. Few have been reported since.

Diagnosis

The diagnosis of exstrophy of the bladder is made by observation of the defect.

Treatment

Surgery offers the only hope for these unfortunates. In the past, various types of plastic procedures were performed—most all ending in failure. Transplantation of the trigone into the rectum had its day. At present the accepted treatment is transplantation of the ureters into the sigmoid colon, followed by cystectomy and plastic repair of the defect in the lower abdominal wall. We feel that the most suitable time for uretero-sigmoidostomy is between one, and one and a half years of age. These children tolerate the procedure well and may become more tolerant to their colonic bacterial flora. As a rule the kidneys and ureters are in better condition and the incidence of pyelonephritis and ureteritis is less.

It is our practice to anastomose both ureters at the first operation. Implantation is carried out by the Coffey 1 technic, a trough 2 to 2.5 cm. in length being utilized. At the distal portion of the trough, two small right angle incisions are made through to the mucosa, thus eliminating any kinking or stricturing effect on that portion of the ureter. The sigmoid is brought to the ureter instead of vice versa; the site of anastomosis is fixed and extraperitonealized. Sulfasuxidine and vitamin K are administered pre- and post-operatively.

Streptomycin is valuable in the control of acute ascending infection. Bowel distention and activity are guarded against before and after operation by means of I. V. feedings, rectal tube and Levine tube.

The bladder removal and plastic repair are effected in the future—the elapsed time being variable.

REPORT OF CASES

Case 1. B. S., (H. E. H. R. No. 15658); admitted: 23 June 1948; sex: male; age: 12 years; diagnosis: Exstrophy of bladder, complete, epispadias; associated anomalies: Absence of prostate and seminal vesicles (by palpation); spina bifida; bifid scrotum; preoperative condition: Normal I. V. urograms; normal blood picture; urine showed trace of albumin and rare WBC & RBC. General condition good.

Operations: 1. Uretero-sigmoidostomy, bilateral, 2 July 1948. 2. Cystectomy followed by plastic repair 27 July 1948 (Fig. 5).

Postoperative: No complications. One to two plus dilatation of upper tract, lessening. Discharged 11 August 1948.

Follow-up: Mild episode of pyelonephritis 2 months postoperative controlled by streptomycin and sulfasuxidine. Urograms reveal diminishing ectasia. General condition good. Plan to bring corpora together at some future date, purely for cosmetic reasons.

Case 2. P. R. P., (H. E. H. R. No. 16106); admitted: 14 December 1948; sex: female; aged: 6 months; diagnosis: Exstrophy of bladder, complete epispadias; associated anomalies: Rudimentary labia; bifid clitoris.

Preoperative condition: urograms revealed slight dilatation of both ureters and left renal pelvis. Bilateral urine culture: *E. coli* and pneumococci. Hypochromic anemia. History of two bouts of upper tract infection. General condition fair.

Operations: 1. Uretero-sigmoidostomy, bilateral, 30 December 1948. 2. Cystectomy and plastic repair of defect 19 April 1949.

Postoperative: Partial paralytic ileus, postoperative. Duration four days. Urograms reveal no noticeable change from pre-operative films.

Follow-up: No trouble.

Case 3. J. V. (H. E. H. R. No. 16155); admitted: 4 January 1949; aged: 2½ years; sex: female; diagnosis: Exstrophy of bladder, complete. Epispadias; associated anomalies: Rudimentary labia; bifid clitoris; deformity lower dorsal spine with several hemivertebrae.

Preoperative condition: Blood picture, urine and urograms normal.

Operations: Uretero-sigmoidostomy, bilateral 15 January 1949. Cystectomy with plastic repair of defect 20 February 1949.

Postoperative condition: One to two plus dilatation of pelvis and calices, bilaterally. Ureters not dilated to same degree.

Follow-up: No trouble. General condition good.

Case 4. M. P. (H. E. H. R. No. 16168); admitted: 20 March 1949; aged: 6 years; sex: female; diagnosis: Complete exstrophy of the urinary bladder. Associated anomalies: Absent urethra, bifid clitoris, rudimentary labia.

Preoperative condition: Normal blood and urine studies. Urograms essentially normal.

Operations: 1. Uretero-sigmoidostomy, bilateral. 2. Cystectomy and plastic repair of defect.

Postoperative condition: Smooth postoperative course. No complications.

Follow-up: No trouble. General condition good.

Summary

1. Exstrophy of the urinary bladder has been discussed.

2. Treatment is wholly surgical, consisting of bilateral ureterosigmoidostomy; cystectomy and plastic repair of the resulting defect. Further plastic procedures on the external genitalia may be carried out at a later date. Optimum time for the original operation is 12 to 18 months of age.

3. Four cases, seen within a period of seven months, have been presented.

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CONSERVATISM IN PROSTATIC SURGERY

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and

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Thomssaville

In considering surgery of the prostate gland it is necessary to include the suprapubic, or perineal, transurethral and retropubic approaches. The type operation elected should be the one most suitable to the individual case. Certainly one should be capable of evaluating and executing all four types of operations before endeavoring to do prostatic surgery.

The term conservatism is used here to denote the choice of a procedure which will give amelioration of symptoms and sequela of prostatic disease for a period of time, with no assurance that further prostatic surgery will not have to be done in years to come. The elderly individual who is a poor surgical risk may be included in this category, but it is the comparatively young man with prostatic disease to whom we wish to invite particular attention in this discussion. Men who have enlarged prostate glands and complications which do not respond to treatment, and yet whose potency should be preserved, are primarily considered here. In such cases potency is better preserved and the condition is best handled by the transurethral approach to the gland. If fertility is not desired a bilateral section of the vas deferens should be done so as to be assured of not having the unpleasant complication of an epididymitis to develop. The latter procedure is carried out at the same time the resection is performed.

In the former case—the elderly individual who is a poor surgical risk—a transurethral resection is the only safe procedure to

employ. The patient may be taken into surgery and if any untoward reaction occurs the operation may be discontinued almost at once, and the patient returned to his room where any necessary treatment may be instituted. If necessary the operation may be performed in several short stages, as was done in one of the cases here reported.

Individuals who have carcinoma of the prostate gland can be made comfortable by the transurethral resection and bilateral orchidectomy. In fact, some of these cases so treated live a fairly normal life and die of some intercurrent malady.

The following case reports are typical examples of the subject under discussion:

Report of Cases

Case 1. A 53 year old male, with a young wife. For the past four years he has had increasing prostatic symptoms. For the past ten months he has had from two to ten ounces of residual urine. The blood pressure gradually rose to 220/120. The patient had regular prostatic treatments with some improvement, but the residual urine and high blood pressure persisted. Cystoscopy revealed a marked intrusion of the median lobe and some intrusion of each lateral lobe of the prostate into the bladder. The bladder wall was very trabeculated. The left ureteral orifice could not be observed because of the enlarged prostate. On April 19, 1948 approximately 30 grams of prostate tissue were removed transurethrally. The patient made an uneventful recovery. On several occasions since the operation the patient has been rechecked. The blood pressure remains normal. He passes a good urinary stream without discomfort and empties the bladder entirely. He states that his sexual relations are better now than they have been in several years.

Case 2. L. J., a 52 year old white man, was admitted to the Archbold Memorial Hospital September 21, 1947 in urinary retention. He gave a history of having had repeated attacks of left renal colic over a period of fifteen years and of having passed blood in the urine. A large palpable mass was noted in the left kidney region. Investigation of the upper urinary tract revealed a fourth degree hydronephrosis, left. No appreciable disease was noted of the right kidney. A large median bar was noted at the vesical neck, which prevented the patient from passing urine. On September 24, 1947 a large kidney shell containing 300 cc. of pus urine was removed. During convalescence it was necessary to keep the patient on catheter drainage. On Oct. 10 the prostate was resected transurethrally. On Oct. 29 the patient was discharged from the hospital as cured.

Case 3. H. E. W., a 64 year old white male, was admitted to Archbold Memorial Hospital July 26, 1948 in an acute urinary retention. He gave a prostatic history of six years duration. The blood NPN was 104 mg. per 100 cc. Kahn negative. Sugar 101 mg. per 100 cc. Intravenous PSP revealed no readable dye output for one hour. X-ray of the KUB region revealed no evidence of calculi. The blood pressure varied from 150/80 to 200/100. The patient was put on catheter drainage and supportive treatment for three weeks with no apparent improvement in his condition. The blood NPN was never below 98 mg. per 100 cc. On Aug. 13, the patient was put on suprapubic catheter drainage and allowed home seven days later. He returned to the hospital on

several occasions for a change of the suprapubic catheter and check-up. There was a slow but gradual improvement until Feb. 15, 1949 when the patient had, apparently, reached a maximum improvement. The intravenous PSP output for one hour was 12 per cent. The blood NPN was 48 mg. per 100 cc. Four days later the prostate gland was resected transurethrally. The patient made an uneventful recovery. The suprapubic wound healed entirely. He was discharged from the hospital March 12 in good condition.

Comments

Case 1 was a middle-aged man with a young wife. Every effort was made to relieve him of his symptoms, and yet his potency should be preserved. His blood pressure had steadily increased from that of normal to 220/120 due to the enlarged infected prostate gland which did not respond to local treatment. Conservative prostatic surgery restored his health and yet preserved his potency. Is not this man entitled to a few years more of the normal physiologic activity of life rather than have the organs of potency destroyed by a more drastic operation, although it may become necessary that he have further prostatic surgery in years to come?

Case 2 had a congenital anomaly of both the upper and lower urinary tracts. The non-functional left kidney was produced by an aberrant blood vessel cording the ureter to the left kidney. Both the renal and prostatic conditions became pronounced in the fifth decade of his life. After removal of the kidney it was necessary to resort to prostatic surgery in order to permit the patient to pass urine. In the elected operation the potency was preserved.

The third case was no surgical risk. He was relieved of catheter drainage by a procedure which was more work for the operator, but far less shock to the patient than any open operative procedure. It was necessary for this man to remain on suprapubic catheter drainage for eight months before reaching maximum improvement. The prostate was then resected in two stages. Any procedure to produce shock would have been fatal to this man.

Discussion

The cases cited are those in whom potency should be preserved and those who are extremely poor surgical risks. The transurethral approach to the gland was made in all cases reported because, first, potency can best be preserved and, second, there is less shock by the transurethral operation than by any of the open procedures. The retropubic as well as the perineal and suprapubic approaches to the gland have been used by us in selected cases very successfully, but they do not offer the degree of conservatism as does the transurethral approach to the gland. It may be that the retropubic approach for prostate operation ranks next to the transurethral approach, in selected cases, in preserving potency. This fact, however, is yet to be determined.

Conclusions

1. Potency is best preserved, in individuals who have prostatic surgery, by the

transurethral approach to the gland.

2. There is less shock to the patient from the transurethral operation than by any of the open operations.

3. The transurethral operation may be discontinued at any time should the patient's condition become grave during the procedure.

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THE PRESENT-DAY MANAGEMENT OF PROSTATIC OBSTRUCTION

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There are few fields of surgery in which more strides have been made in the past few years than in the surgery of the prostate gland. In competent hands mortality has been tremendously reduced, and is now amazingly low. Morbidity has been greatly lessened and post-operative complications are fewer. Chiefly responsible for this improvement are: (1) the newer chemotherapeutic agents; (2) improved instruments and catheters; (3) more careful pre- and post-operative care, which includes a better knowledge of fluid and electrolyte balance, and of maintenance of nutrition in these frequently debilitated patients; (4) advances in technic of anesthesia; (5) improvement in surgical technic; (6) early ambulation, which has reduced greatly the incidence of cardiovascular accidents, and lessened morbidity tremendously; and (7) careful selection of cases for the surgical procedure calculated to give the patient the best end-results.

Only six years ago, Orr, Kundert and Pyle¹ reported a mortality of 8.3 per cent following transurethral prostatic resection,

but more recent advocates^{2,3} of this procedure have reported mortality figures of around 1 per cent, reflecting the results of more intensive chemotherapy, improved technics, etc. Mortality following perineal prostatectomy averages 1 to 3 per cent in competent hands (Higbee),⁴ while that following suprapubic prostatectomy seems to run somewhat higher, averaging about 4 to 6 per cent.⁵ Lowsley and Gentile recently reported an overall mortality in prostatic surgery of 3 per cent in approximately 1700 cases.⁶

Recently, I have reviewed a personal series of 400 consecutive prostatic operations. They are as follows:

Transurethral resection	359
Perineal Prostatectomy	32
Radical perineal prostatectomy for carcinoma	4
Suprapubic prostatectomy	3
Sub-total perineal prostatectomy for extensive prostatic calcification	2

Of these 400 cases, 2 died following operation, giving an overall mortality of 0.5 per cent. Both of these deaths occurred following transurethral resection; no deaths resulted from any other type of surgical procedure. Both deaths followed operation upon extremely poor-risk patients. The first, aged 75, had very severe coronary disease; apparently progressing very nicely after operation, he died suddenly on the third post-operative day while sitting in a chair smoking his pipe, obviously of a coronary occlusion. The second, aged 66, had severe renal damage resulting from long standing prostatic obstruction. Blood NPN on admission was 200 mg%. After three and a half weeks of catheter drainage, adequate fluid and vitamin intake, and repeated transfusions, the NPN became stabilized at about 140 mg%. Operation was carried out uneventfully, and the following day the patient sat in a chair, was bright, and ate well. Subsequently, however, in spite of adequate urinary output, the NPN climbed steadily, reaching a level of 225 mg% on the eighth post-operative day, at which time

the patient died of uremia.

It will be noted that no retropubic operations are included in this series; none was performed. Furthermore, few will be performed until it is conclusively demonstrated that this operation will improve materially the results presented herein.

Age: The average age of patients in this series was 64.4 years. Patients having transurethral resection averaged 63.8 years, while those undergoing perineal prostatectomy were on the average 69.4 years of age. There are too few cases of the other types operations for the average age to be of significance. The oldest patient in this series, 91 years old, underwent uneventful transurethral resection, with removal of 32 grams of tissue; 14 patients over 80 years of age received the same operation without fatality. Perineal prostatectomy was performed in 2 patients over 80, and the youngest having this operation was 61.

Pre-operative and post-operative care: We consider catheter drainage prior to operation unnecessary, unless renal function is definitely reduced. In such cases, catheter drainage should be continued for as short a period as possible. Operation is carried out as soon as the blood NPN or blood urea has become stabilized, even though it remains elevated. We do not hesitate to operate even though the blood NPN ranges up to 80 mg/%, if it appears that there will be no further or very slow reduction. Anemia is treated by blood transfusions prior to operation, and transfusions are used freely to replace blood lost at operation. We consider it very important that urinary output be maintained at 2,000 to 3,000 cc. daily both before and after operation. An upset acid-base balance can usually be improved or restored by intravenous administration of suitable fluids. The maintenance of the proper state of nutrition, especially protein balance and adequate vita-

min intake, has led to less shock, more resistance to infection, shorter convalescence and better wound healing. Adequate chemotherapy has been of incalculable benefit in the handling of these cases. As described in a previous publication, we routinely give a combination of penicillin and sulfadiazine, beginning the evening before operation, and continued as a rule until the fifth to seventh post-operative day. This combination makes post-operative febrile episodes rare, reduces morbidity, and not infrequently the patient is discharged from the hospital with a sterile urine.⁷ More recently streptomycin has been used with considerable success in instances of troublesome bacillary infections.

Choice of operation: In expert hands transurethral resection can be performed with little risk and excellent results, in the great majority of cases. It should not be used in cases complicated by urethral stricture, or when the gland is too large to be satisfactorily removed in less than an hour. The hypertrophied tissue should be removed down to the surgical capsule in all quadrants and the whole prostatic fossa should be left smooth. If this is not achieved, recurrence, persistent infection, continuation of symptoms and delayed hemorrhage are frequent aftermaths. Perineal prostatectomy can be performed with about the same mortality. However, because of the longer hospitalization required, and very frequent loss of sexual powers following this operation, it is usually reserved for glands thought to be too large to be handled satisfactorily in one sitting by transurethral resection, or to those cases in which early carcinoma is suspected. In these latter instances, perineal biopsy and frozen section signify immediately whether or not radical perineal prostatectomy should be carried out. Suprapubic prostatectomy in my practice is limited to those patients with extremely large prostates, particularly those chiefly

intravesical in type, or enlarged glands with associated complications requiring opening of the bladder for their correction. Extensive prostatic calcification is treated best by subtotal perineal prostatectomy, which assures complete removal of the gland and all calcareous deposits. This condition, however, frequently occurs in somewhat younger patients, to whom preservation of sexual function is important. In these, transurethral resection often will give good results, although it is not always possible to remove completely all calcification by this method.

Weight of tissue removed: The average weight of tissue removed in 359 cases of transurethral resection, excluding operations performed for vesical neck contracture, etc., was 29.5 grams. The largest amount of tissue removed by this method was 98 grams, and in a number of cases more than 75 grams of tissue were removed. It is of interest to note that in one patient, aged only 48, 60 grams of tissue were removed. In 32 cases of perineal prostatectomy, the average weight of tissue removed was 49.9 grams, the largest weighing 125 grams and the smallest 14 grams. In the 3 cases of suprapubic prostatectomy, the average weight was 312 grams, revealing immediately the type gland for which this operation was reserved.

Morbidity: The average hospital stay following transurethral resection was 8.4 days, while following perineal prostatectomy it was 15.6 days. This figure is of no significance following other types of surgery, as the number of cases was too few. No attempt has been made to estimate the period of disability following discharge from the hospital. However, patients undergoing transurethral resection usually resume their work within 2 to 3 weeks, while it is 3 to 4 weeks as a rule before work can be resumed following perineal prostatectomy, and even

longer after suprapubic prostatectomy.

Complications: The most feared and frequently reported complications following perineal prostatectomy, viz., urinary incontinence and rectal injury, did not occur in this series. Also, there was no instance of persistent urinary fistula. Except for three known instances of moderate post-operative stricture, the post-operative results were uniformly good. In competent hands, and in carefully selected cases, I do not feel that the functional end-results of properly performed perineal prostatectomy can be surpassed by any other type operation. However, the prolonged hospital stay, increased morbidity, and frequent destruction of sexual powers are factors which frequently sway the decision to carry out some other type surgical procedure.

In this series, there was likewise no instance of urinary incontinence following transurethral resection. The most troublesome complication resulting from transurethral resection has been urethral stricture, occurring in approximately 6 per cent of cases, in spite of careful calibration of the urethra prior to operation. The great majority of these strictures have occurred in the distal urethra, near the external meatus, with the remainder in the region of the membranous urethra. We are now making an effort to prevent this troublesome complication by more frequent use of perineal urethrostomy in narrowed urethras, and use of the new Nesbit convertible electro-tome, which can be used in a No. 24 or 26 F. sheath, instead of the regulation No. 28 F. sheath. Post-operative hemorrhage requiring return of the patient to the operating room, evacuation of clots and fulguration occurred on three occasions, or in 0.8 per cent of the cases treated by transurethral resection. In this series of transurethral resections there was an incidence of 1.4 per cent of persistent urinary tract

infection, which has not responded to the usual post-operative management. In no instance of persistent infection, however, was there any residual urine, or were the symptoms sufficiently severe to warrant further surgery. Repeat transurethral resections were necessary in only 3 instances.

Carcinoma: In this series only 7.2 per cent of cases proved to have prostatic carcinoma. This figure is somewhat lower than the percentage of carcinoma usually reported in such series. This, I believe, is due to the fact that now cases of carcinoma frequently do not come to operation, urinary symptoms and residual urine being satisfactorily controlled by estrogens or orchietomy. Of the 29 cases of carcinoma operated upon, it was felt in 4, or 13.7 per cent, that the growth was confined within the prostate, and that radical perineal prostatectomy was indicated. This figure approximates fairly closely a similar series previously reported by me⁸ and a more recent series reviewed by Jewett.⁹ The remainder had transurethral resection for relief of marked obstructive symptoms. Of great interest is the fact that two of the 29 patients with carcinoma were less than 50 years of age, e.g., 48 and 49 years, respectively. In each instance the growth was too extensive to warrant radical perineal prostatectomy. Radical perineal prostatectomy is the only method by which early carcinoma of the prostate can be cured, and, in suitable cases, one may expect at least a 50 per cent 5-year survival rate. The diagnosis of early carcinoma of the prostate is sometimes difficult. Fortunately, in at least 75 per cent of cases, carcinoma arises in the posterior lobe, just beneath the capsule, where it is detected easily by the examining finger. Any firm nodule or area of induration, even if it involves only a very small portion of the prostate, should be suspected of being carcinomatous until proven otherwise, and all

such cases should be given the benefit of a rectal examination by a competent urologist. It is mainly through careful, routine, yearly rectal examinations upon all men past 45 that more cases of prostatic cancer may be discovered sufficiently early for radical surgery to be feasible and curative.

Summary and Conclusions

In competent hands, and with the aid of recent advances made in the field of urology, prostatic obstruction now may be relieved with greatly decreased morbidity, few post-operative complications, and with a mortality of considerably less than 1 per cent.

A skilled prostatic surgeon must be thoroughly familiar and adept with the transurethral, perineal and suprapubic methods for removal of the obstructing prostate. Judicious selection of cases for each of the above surgical procedures will result in great improvement in end-results; no one method is suitable for the handling of all types of obstructing prostates. Only through perineal surgery can the surgeon offer the patient hope of permanent cure in cases of early prostatic carcinoma.

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POSITIVE APPROACH TO PERSONALITY IS GOOD MENTAL HYGIENE

The strongest bulwark anyone can build against mental illness is to make a conscious effort to develop what is best in his or her personality, says a psychiatric social worker who has been dealing with personality difficulties for 10 years.

Most people spend far too much time mulling over their own weaknesses and shortcomings, writes Helen Thomson of Chevy Chase, Md., in the current (November) issue of *Hygeia*, health magazine of the American Medical Association.

They focus on what is wrong rather than what is best in their personalities, or, as a psychiatrist might say, they are "oriented in the negative," she points out.

"To safeguard our mental health we need to get turned around the other way," Mrs. Thomson says. "We need to focus on what's best in ourselves. That is the road to emotional health."

RETROPUBLIC PROSTATECTOMY

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Retropubic extravesical prostatic surgery is a recent advent in the field of urology, and one that is a topic of controversy at this time. Terrence Millin¹ of London, England, developed the technic and published his preliminary findings in 1945. Similar approaches had been advocated previously, the first in 1909². Fear of infection in the space of Retzius, with its consequences, was probably the factor which caused the abandonment of the earlier procedures. However, with the present use of chemotherapy and the antibiotics, it is no longer considered hazardous to open the space of Retzius. During the past three years, the operation has been accepted, to a moderate extent, in this country and abroad^{3 4 5 6}.

Four types of prostatectomies are performed at Grady Memorial Hospital, Atlanta. The transurethral resection, utilizing the loop and current, is used for minimal bladder neck obstruction. The perineal approach is favored when early prostatic carcinoma is suspected. The suprapubic transvesical route has been followed when a large hyperplasia is present. The retropubic route has been performed when malignancy has not been suspected and the hyperplasia was estimated to weigh at least 30 grams. However, it is not possible in the allotted time to discuss the applicability of the different approaches.

To date it has been our privilege to perform 44 retropubic prostatectomies. Our mortality consisted of only one death, or 2.3 per cent of the series. This patient died

of a coronary thrombosis on the twenty-third post-operative day (Table 1).

TABLE 1	
<i>General Statistics</i>	
Race:	
White	21
Negro	23
Pathologic Diagnosis:	
Benign prostatic hypertrophy	40
Malignant	4
Average age	69 years
Average weight of tissue	49 grams
Average post-operative hospital days: (uncomplicated cases)	5.0 days
Average post-operative hospital days: (all cases)	11.9 days*
Average number of weeks before discharge: (uncomplicated)	4.0 weeks
Average number of weeks before discharge: (all cases)	5.8 weeks

*Discharge from hospital delayed by both physical and social reasons.

About an equal number of white and Negro patients were included in this study. The physical condition of a patient was not a factor in selection of cases. The histologic diagnosis was hyperplasia in 40 cases and adenocarcinoma in 4. The average weight of tissue removed was 49 grams. Patients ranged in age from 54 to 96 years, the average age being 69. The average number of post-operative hospital days was 5 in the uncomplicated cases, while in the entire group the average number of post-operative hospital days was 11.9. However, there were many social and economic factors that entered into the latter figure.

Patients without complications were dismissed as cured in an average of 4 weeks, while those with complications were discharged in an average of 5.9 weeks.

Technic of the Procedure

The procedure described by Millin has been followed in general, except for the fact that we have used only instruments which are ordinarily available. We use a low midline vertical incision, which extends to the upper border of the symphysis and exposes the prevesical fascia. A Balfour retractor is inserted and sponge packs are carefully placed on each side of the prostate to facilitate exposure. By careful dissection, the prevesical fascia is removed from

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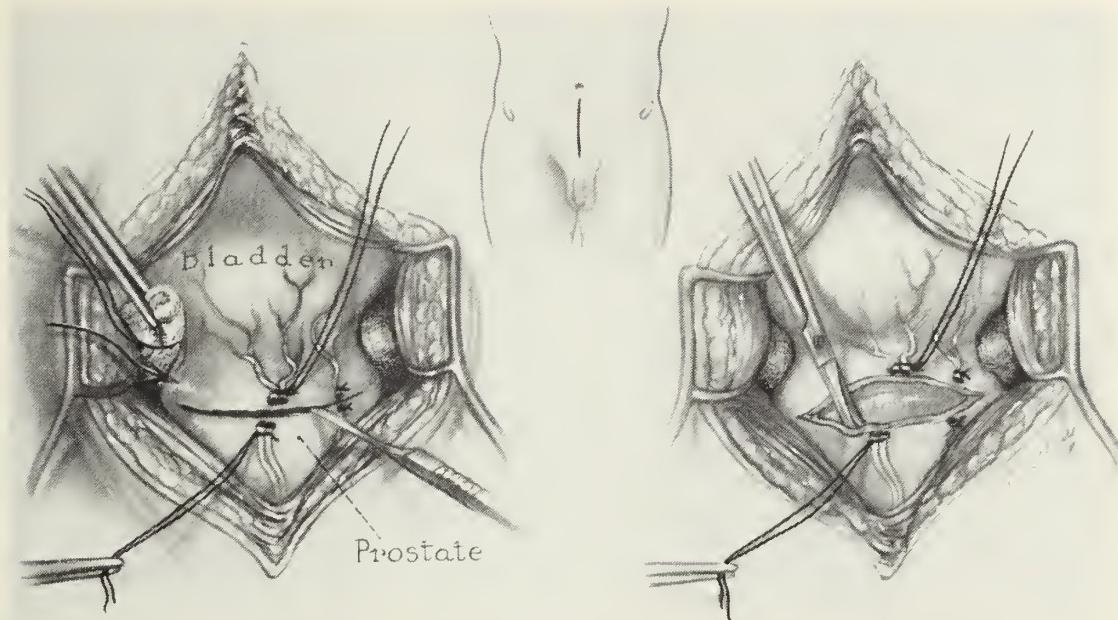


Figure 1. Sketches demonstrate the type of skin incision (center), ligation of veins in the perivesical space, and the transverse incision in the prostatic capsule. Note the gauze packs lateral to prostate.

the anterior prostatic capsule. The puboprostatic ligaments should be avoided, as adjacent blood vessels are extremely difficult to locate. Generally it is necessary to ligate one or more medium-sized veins coursing over the anterior capsule of the prostate. We have discontinued use of the coagulation current for we believe that it delays healing. A transverse incision, usually 3 centimeters or less in length, is made 1 centimeter below the vesicoprostatic junction down through the capsule to the hyperplastic tissue. Suction is used to locate bleeding points which are clamped and ligated.

A cleavage plane is established between the adenoma and the capsule, anteriorly, by the use of blunt scissors. Then by manual dissection the apex is freed. Blunt dissection is continued until the hyperplastic gland is attached only to the vesical neck. Under direct vision, the adenoma is grasped with Allis forceps, brought up into the incision, and sharply dissected free of its remaining attachments. A warm pack is immediately placed in the prostatic fossa. After removal of the pack bleeding points

are clamped and ligated. A small retractor is then placed over the superior lip of the incision, the posterior lip of the vesical neck grasped with an Allis forcep and a segment of tissue removed around the forcep with scissors. After inspection of the prostatic fossa, a size 20F Foley bag catheter is introduced per urethra into the bladder and the bag inflated. The prostatic capsule is then closed with a continuous suture of plain 0 catgut. The catheter is irrigated to insure against leakage through the closure. The packs are removed, and a Penrose drain placed down to the prostatotomy incision and brought out through the inferior end of the skin incision. Routine closure of the rectus sheath and skin is done.

With increased experience and efficiency, exposure and bleeding have been less troublesome. The average operating time in the later cases has been approximately 30 minutes. The average blood loss in the first 25 cases was 610 cc., while in the last 19 cases, it averaged only 300 cc. This compares with an average loss of 250 cc. in one-stage transvesical prostatectomies. In the majority of cases, there has been little or

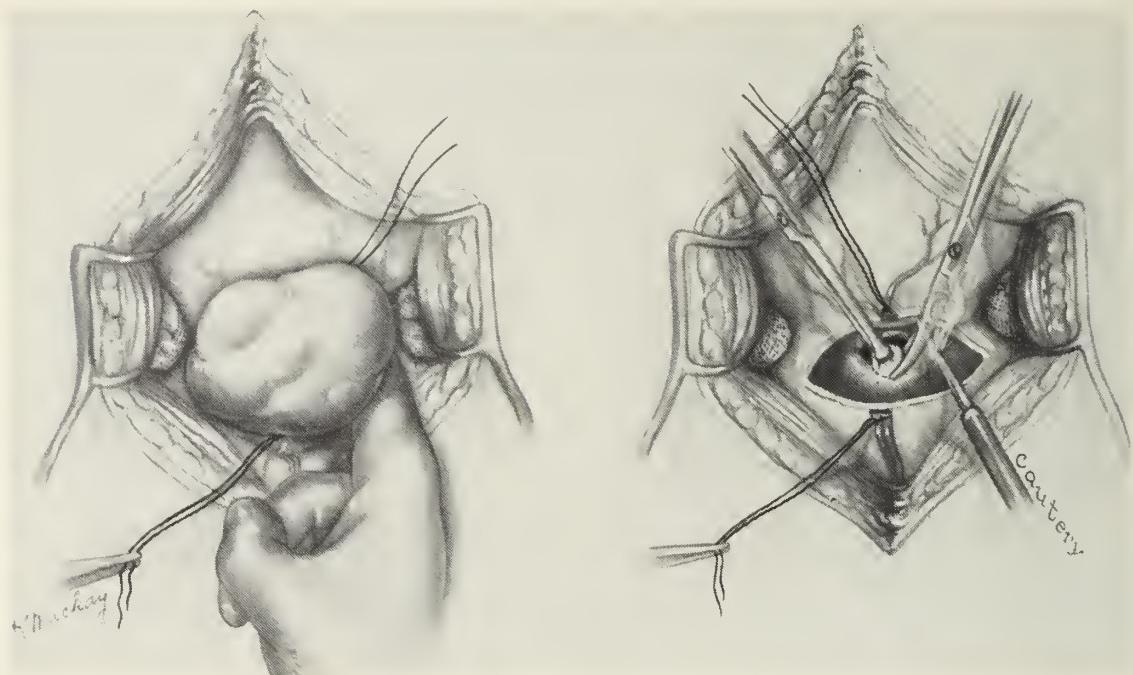


Figure 2. Illustrations to show enucleation of the adenoma, and excision of a v-shaped wedge to enlarge the vesical neck.

no post-operative bleeding.

Complications

We have observed several of the complications described by other authors. Despite these, the final results of the procedure have been gratifying. In one case of hemorrhage, it was necessary to open the bladder at the time of operation and pack the prostatic fossa. Osteitis pubis has occurred in two patients but both patients recovered in a relatively short time. Three patients developed transient epididymitis which responded to treatment. There were four cases that developed incisional abscesses which delayed healing but did not affect the final results. Two patients apparently developed a post-operative contracture of the bladder neck, but these occurred before we routinely incised the bladder neck. Persistent urinary tract infection occurred in 3 cases, one for three months; however, they all eventually responded to chemotherapy. A suprapubic fistula was observed in two patients, one for the duration of a month, but both closed spontaneously. One patient had an episode of acute urinary retention

after the catheter was removed but it did not occur again and no cause was ascertained (Table 2).

TABLE 2
Complications

Hemorrhage:	
Early	1
Late	2
Osteitis pubis	2
Epididymitis	3
Incisional abscess	4
Contracture, bladder neck	2
Persistent urinary infection	3
Suprapubic fistula	2
Acute urinary retention	1

Other writers have described complications such as incontinence, neuritis of the obturator nerve, edema and ecchymosis of the penis, and acute urinary retention due either to atony of the detrusor muscles or to spasm of the external sphincter. We have not observed any of these latter complications.

Summary and Conclusions

The results of 44 cases of retropubic prostatectomy are reported and the technic followed is described. We believe that several advantages are gained by the treatment of benign hyperplasia by this method.

The outstanding advantages of the procedure are:

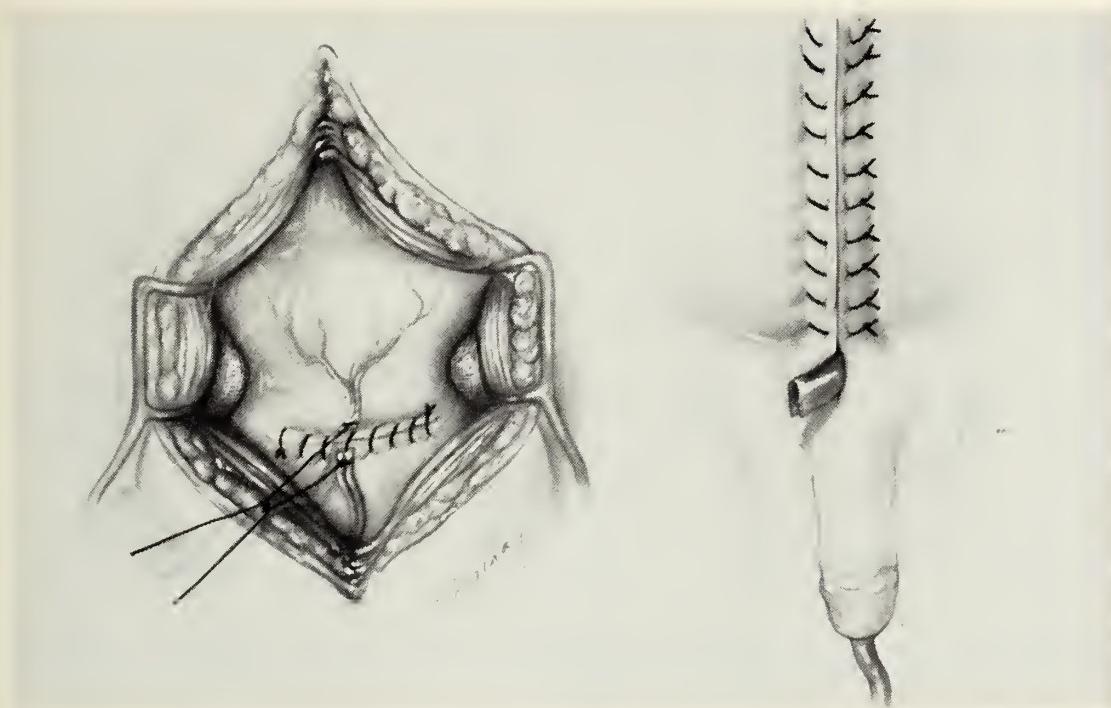


Figure 3. Closure of prostatotomy and skin incision with drainage.

1. The patient experiences very little post-operative discomfort or pain. He becomes ambulatory early without difficulty, his bed remains dry, and there is no undesirable odor.

2. Mortality has been low, surgical shock is uncommon, and hemorrhage infrequent.

3. Suprapubic drainage is minimal and healing is prompt and usually by primary intention.

4. The procedure is performed under direct vision, insuring the complete removal of the hyperplasia.

5. The vesical neck can be enlarged to the desired size, preventing post-operative contracture of the vesical neck.

6. Hospitalization appears to be shorter, as is the period of disability. Several of our patients have returned to their routine occupation in three weeks.

7. The external sphincter is not disturbed and consequently, no cases of incontinence have occurred.

8. Sexual potency is rarely disturbed.

9. Only a minimum of care by trained

personnel has been found to be necessary.

10. Post-operative cystitis and urethritis is not common. Associated upper urinary tract infection is rare.

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DISCUSSION

DR. J. L. CAMPBELL, JR. (Valdosta): I consider it a distinct privilege to be able to discuss these papers. They are six very excellent papers, and I believe they are by far the best group of papers I have heard in a urologic session of our State meetings.

Dr. Semans' paper has certainly described the matter beautifully. I wish only to re-emphasize that by the use of the gram stain we can determine whether or not the drug will be applicable. Running the sensitivity test and the therapeutic test simultaneously will certainly afford an advantage, because the sensitivity tests alone delays therapy for twenty-four to forty-eight hours; and from an economic standpoint, at the present time it is much cheaper for the patient.

Dr. Coleman's paper: I must confess I am ignorant of the subject, but his paper was excellent. Six ureteral tumors in seven years is a wonderful series. The slides were excellent, and I believe it will behoove all of us to be on the lookout for this condition.

The paper on exstrophy of the bladder brought up several points. First is the optimum age for performing the operation. Dr. Fort mentioned that there were two schools of thought. I think the earlier, the better. The psychic angle, as far as the parents are concerned, cer-

tainly should be considered. These children are deformed, and for some reason parents become particularly attached to children who are unfortunate enough to be born with a deformity. The sooner it can be corrected and the child restored to normal, the better the parent-child relationship will be.

Anesthesia at the tender age of less than three months also brings up a good point. While I was at Grady Hospital we operated on several children less than—well, some of them were only a few days old, and we very successfully used a "whiskey teat" anesthesia. I think all of them got along beautifully with that type of anesthesia.

There have been some seventy-odd different technics reported for transplanting the ureters into the sigmoid colon, and I feel confident that everybody who does the operation has to modify the technic as the situation arises. By and large, at the present time the operation is considered almost routine, particularly with the advent of the sulfa drugs and streptomycin. Incidentally, streptomycin by mouth is quite effective in controlling or sterilizing the G. I. tract. There again the early age has an advantage because the colon is relatively sterile.

I would like to ask Dr. Fort what he thinks about children with an imperforate anus and exstrophy of the bladder. Can the anal sphincter be repaired, or plastic work done on it successfully enough to make it hold water? Two cases that I saw did have imperforate anuses.

I would like to bring up one point in Drs. Stinson and Bell's paper on transurethral resection. I think it is quite a logical procedure to do a transurethral prostatectomy when a suprapubic catheter is in place. That, of course, will cause some discussion, but when a patient has been wearing a suprapubic tube for some time and the prostate gland has returned more nearly to normal, and you do not wish to subject him to a second "open operation," as they usually refer to it, I think the transurethral can be successfully carried out. It is a procedure that I do not think should be overlooked.

Certainly there is no question about such an approach. I believe the transurethral is the procedure of choice when potency is to be considered.

Dr. Prince's paper is a splendid record. Four hundred prostatectomies by all routes, with only two mortalities! That is splendid, and Dr. Prince is to be congratulated.

He mentioned the fact that if the NPN came below 80, surgery was performed. I presume, Dr. Prince, that if it remained above 80 a cystotomy would be considered, although no mention was made of that in your paper. Also, the three suprapubic prostatectomies with an average weight of over 300 grams: To those of you who have never weighed a prostate, that is well over the size of a big grapefruit. That's a big prostate, and I don't know of any other way it can be removed.

I would like to re-emphasize again and again the fact that early carcinoma of the prostate cannot be detected by any method except a rectal examination. Certainly every man over forty-five should have a rectal examination every year. The general practitioners, who see by far the majority of patients in Georgia and everywhere else, should do a rectal examination on this group of patients. As a matter of fact, the patient is not getting his money's worth if the doctor examines him and does not do a rectal examination. I am sure everyone here realizes that we are all negligent in certain phases of our medical work, and that is one phase that I am sure everyone will agree is particularly overlooked—that is, rectal examinations on male patients.

Dr. Deming, in the last issue of the Journal of Urology, estimated that there are several million men in the United States with carcinoma of the prostate. If he is right—and I feel confident he is—early carcinoma of the prostate can be detected by the correct examination and can be cured. Radical perineal prostatectomy has a very definite place. It is being performed successfully, and I cannot emphasize too strongly the fact that it should be employed when cancer is detected early.

Dr. Prince said that until retropubic prostatectomies were proven, he was not going to use them. I think he is

perfectly justified by not performing the operation when he has such a splendid record, but I feel personally that retropubic prostatectomy has its place.

Dr. Moffett and Dr. Bennett have presented an excellent series of forty-four cases of retropubic prostatectomy. The striking thing about this, to me, is that the hospitalization period averaged five days in the uncomplicated cases. That certainly is far shorter than any other method with which I am familiar, and I think it is certainly worth while to bear in mind that that factor does enter the entire picture. I believe 11.5 was their average hospitalization period in the complicated patients.

These patients are extremely comfortable—I say "extremely comfortable," but of course they are not. As far as being comfortable after prostate operation is concerned, they are extremely comfortable. They void and void easily after the catheter is removed, and I believe in that series the average length of catheterization following operation was approximately three days. The urine is remarkably clear even twenty-four hours following the operation.

Dr. Moffett said that transurethral resection was reserved for median lobe hyperplasia. That is true only during the period that this series was being collected; otherwise transurethral surgery is employed at Grady as it is anywhere else.

DR. ZEB McDANIEL (Albany): I have had the pleasure of hearing these fine urologic papers this afternoon, and in addition I had the privilege of reading copies of them before this meeting. They are all excellent papers, and I feel that they reflect the creditable work that is being done throughout the State in the field of urology today.

Because of the short time remaining, I would like to speak briefly regarding only those papers dealing with the prostate and urinary tract infection.

The prostate gland, being so strategically located at the neck of the bladder, undoubtedly should receive credit as the originator of the slow-down and cut-off. Any enlargement of the gland, whether it be due to benign or malignant changes, edema from acute inflammation, fibrosis, calculus, or cyst formation, may prevent the opening of the neck of the bladder and set off the familiar chain of obstructive symptoms.

Acute retention due to the edema of inflammation may be relieved by prolonged catheter drainage. Relatively satisfactory voiding in obstruction due to malignant changes may sometimes be accomplished by castration and/or the administration of estrogens. Obstruction due to other causes is almost always purely mechanical, and will respond to nothing else but actual removal of the obstruction.

The essayists speak glibly of four routes of approach to the gland, namely, suprapubic, retropubic, transurethral and perineal. While it is most desirable to be able to perform all four, I believe they will agree that not many urologists do all four routinely.

Of the four approaches, I agree that the transurethral, while maybe the most difficult operation to master, is the one that is best suited in most cases, and the one most likely to have less morbidity and mortality. However, in certain cases the other routes of approach possess certain inherent advantages.

While we have a fellow feeling of sympathy for those who have not been able to master all approaches, we likewise do not concur with those who have spoken lightly of any approach. The retropubic approach has some definite advantages, and, thanks to Mr. Terrence Millin, at last has apparently found its rightful place.

Before practical and rational treatment of urinary tract infection can be carried out, there are some rules with which everyone must comply: There must be good drainage; there must be a free flow of urine, and there must be (in adequate amounts) an antiseptic to which the infecting organism is susceptible. Judicious use of the x-ray, particularly the excretory urogram, will ordinarily give the desired information regarding drainage.

The exact nature of the bacteria, of course, can be

determined only by culture of the urine. This should be done whenever possible. When this is not readily available, one can approximate the nature of the organisms by a gram stain and a pH determination with nitrazine paper. Excepting the gonococcus, gram negative cocci and gram positive bacilli found on the gram stain of the urinary sediment are not considered seriously. Most gram negative rods and gram positive cocci are usually pathogenic.

The determination of the organism becomes increasingly important when streptomycin is used, because some bacteria, when not overwhelmed early by the drug, become resistant to it. Our best results with streptomycin have been obtained in infections due to *Escherichio Coli*, *aerobacter aerogens*, and *proteus vulgaris*.



Figures 1, 2 and 3 (left to right—Felber). Note discussion by Dr. Ernest Felber regarding ureteral tumors.

DR. ERNEST FELBER (Atlanta): I would like to say a few words only about Dr. Coleman's paper. His paper was definitely very interesting. The report of six cases seen in eight years, all of them diagnosed preoperatively, is quite remarkable, and proves the excellent diagnostic work done.

Those cases demonstrate again the necessity of complete investigation of the ureter if dilatation of kidney-pelvis and calices are found by pyelogram.

Removal of the kidney and ureter, including the ureteral ostium in the bladder, is the operation of choice in all cases. This applies also to the benign papillary tumors of the ureter. Papillomas might be microscopically benign, but clinically they are malignant because they recur and might change from a benign papilloma to a malignant one. We have seen a small bleeding papilloma in the bladder eight years after nephroureterectomy for papilloma of the ureter.

Bleeding and pain in the kidney of the affected side are the most common symptoms of ureteral tumors, but absence of bleeding does not exclude the presence of a tumor in the ureter, as shown in a case of benign papilloma of the ureter I diagnosed and operated on in 1941. Incidentally, this was the first case of papilloma reported in Georgia. Another case of benign tumor of the ureter, without hematuria, was diagnosed a few months ago. The only symptoms in this case of a woman 70 years old were dysuria, low-grade fever and two attacks of kidney colic.

The urologic study revealed the following: A filling defect in the ureter 3 cm. above the bladder; a tortuous and dilated ureter above the filling defect; dilation of the kidney-pelvis and calices, and an abscess cavity in the kidney. Due to the predominant symptoms of infection, an inflammatory condition in the lower third of the ureter was considered similar to a tuberculoma, as seen in tuberculosis, but tuberculosis was not present

in this case. The culture revealed only colon bacilli. Under the diagnosis of benign tumor of the ureter I performed nephroureterectomy. May I present three slides?

Figure 1 shows the specimen of the removed kidney and ureter. The dilated ureter shows close to the bladder a bulging, with a soft palpable tumor. The ureter below the tumor was normal.

Figure 2. Here bulging of the ureter is seen much more clearly.

Figure 3. The ureter is open, and a yellowish-looking tumor gives the impression of a lipoma.

The pathologist reported an absolutely benign lesion of inflammatory character, consisting of granulation tissue, loaded with plasma cells, lymphocytes, lipoids,

large mononuclears, and a surprising number of eosinophiles. Such tumors are called infectious granulomas. There are only very few cases mentioned in the literature, but the lesion in this form seems to be unique.

Dr. Coleman should be commended for his excellent presentation and for calling our attention again to the important subject of tumors of the ureter.

DR. CHARLES L. PRINCE (closing): I am afraid Dr. Campbell misquoted me slightly when he said that I apparently operated upon patients with an NPN above 80, or considered doing a suprapubic cystotomy. What I said was that I do not hesitate to do a transurethral resection on a patient, even though the blood NPN ranges up to 80, if it seems to be stabilized at that point. If it seems to be dropping on catheter drainage we naturally wait until it is stabilized, hoping that it will return to normal.

You probably will note that one of the two deaths I reported occurred in a man who had an NPN of 200 upon admission. I drained his bladder for three and a half weeks through a urethral catheter and his NPN came down to about 140, as I recall. It seemed to be stabilized at that point. It did not come down any more, so I decided to operate.

I did a transurethral resection. Unfortunately, following the operation the NPN climbed right back up, and he died in uremia. Probably the wisest thing to have done in that case would have been to put in a suprapubic tube. He would probably still be wearing it, because I don't believe his NPN would have come down any more. However, he would probably still be living if he had a suprapubic tube. I do not feel that we know enough as yet about the degree of uremia present to preclude prostatic surgery. Survey of a series of patients with elevated nonprotein nitrogen, in which prostatic surgery had been carried out would make an interesting study.

DR. CHESTER A. FORT (closing): In answer to Dr. Campbell's question about the concomitant existence of the gut opened to the bladder, I will have to confess ignorance, because I have never seen one and I don't know what I would do with it if I did. I would have to have someone help me. I have never seen one.

ADRENAL SURGERY

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and
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In recent years there has been a renewed interest in the diseases of the adrenal gland. This has been stimulated in part by new and more accurate diagnostic technics which permit early recognition of adrenal disease. Surgical management of adrenal tumors has been increasingly successful for several years, and is now well established. It is our purpose to present a surgical technic which has proven satisfactory.

The symptoms which result from an adenoma of the adrenal cortex are complex and depend to an extent upon the age at onset and the sex of the patient. When congenital, the tumor produces pseudohermaphroditism, female type, but when it occurs during childhood, such symptoms as sexual precocity, premature puberty, masculinity, and hirsutism are commonly seen. After puberty in the female, there occur amenorrhea, frigidity, hirsutism, and a general tendency toward masculinity. The adult male may show testicular atrophy and enlargement of the breast. Occasionally in cortical tumors, there occurs hyperglycemia and rarely a sustained type of hypertension.

Tumors of the adrenal medulla are rare and usually malignant. Of these tumors, the pheochromocytoma is of greatest interest because it causes hypertension and may be cured by surgery. The tumor causes paroxysmal or sustained hypertension, extreme instability of the sympathetic nervous

system, vasoconstriction (pallor and sweating), nausea and vomiting.

In general, adenoma of the adrenal cortex and pheochromocytoma are the only types of adrenal disease suitable for surgery.

A single adrenal gland may be adequately exposed by a variety of methods. The regular loin kidney incision may be used by extending it posteriorly to the spine or by removing the twelfth rib. The adrenal may also be exposed by laparotomy, but both of these methods have the disadvantage of exposing only one of the adrenal glands. It is fundamental that both adrenal glands be exposed simultaneously if a tumor of one is to be removed, for the opposite adrenal is sometimes absent and the tumor is frequently bilateral.

In 1936 Dr. Hugh H. Young described a technic for the simultaneous exposure of the adrenals, which is the method of choice in dealing with adrenal tumors. The technic, as described, requires the use of a special retractor devised by Dr. Young, but the operation may be performed without any special equipment, with slight modification.

The patient is placed prone upon the operating table with a sandbag under the upper chest and pelvis. The table is broken so as to flex the thighs approximately 30 degrees (Figure 1). An arterial transfusion is started before the operation is commenced. Ether by the open method has proven satisfactory for anesthesia. An ample supply (20-30 cc.) of adrenalin must be on hand and an intravenous infusion of glucose is usually started before surgery.

The incision is completed first on one side and then the other, before the tumor is disturbed. Each incision begins 4 to 5 cm. lateral to the spine directly over the eleventh rib. It extends downward curving slightly laterally so that it passes over the crest of the ilium 8 cm. lateral to the spine. The latissimus dorsi and serratus muscles

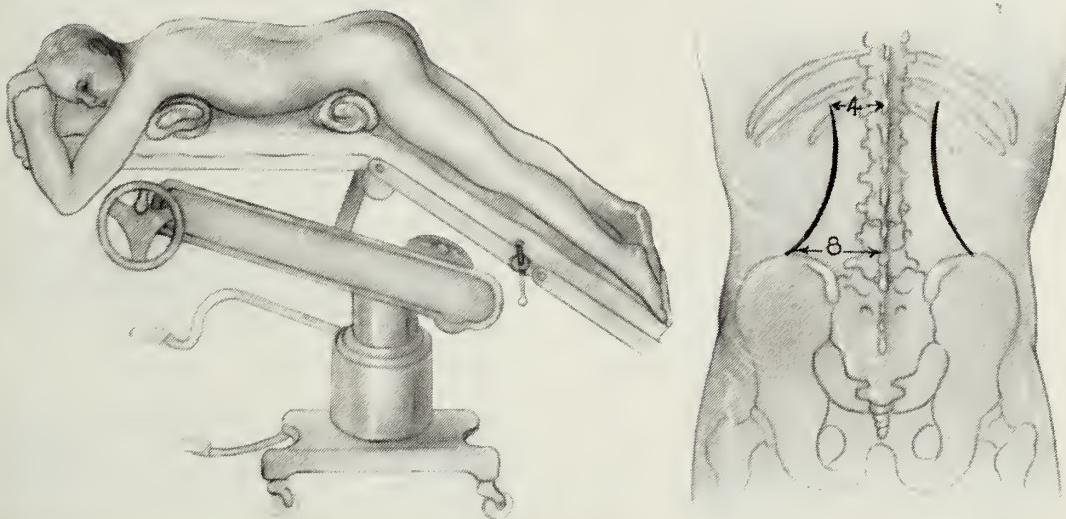


Figure 1. The position of the patient on the operating table and the location of the bilateral incision.

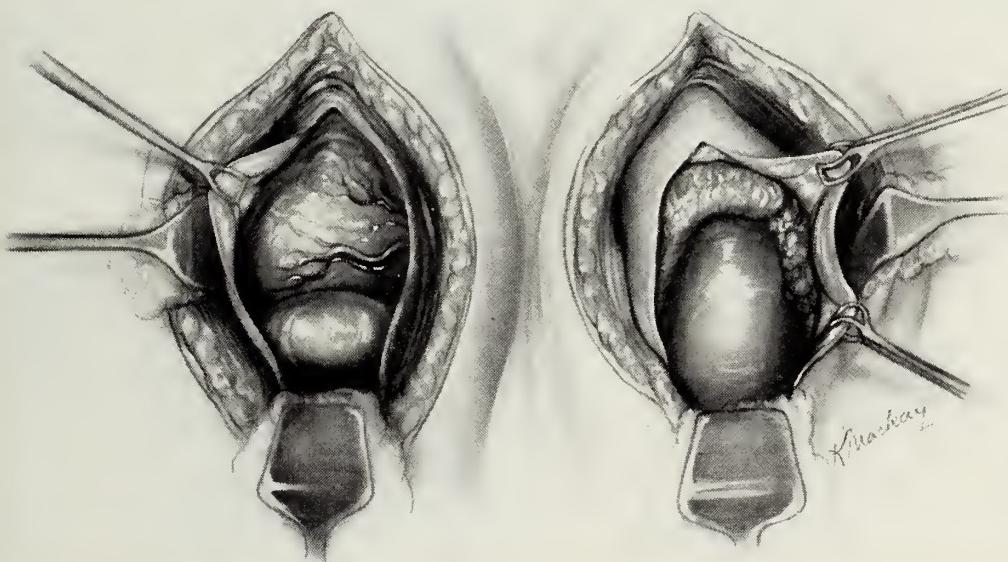


Figure 2. Exposure of the upper poles of both kidneys, demonstrating a normal adrenal on the right and large adrenal tumor on the left. Gerota's fascia is the layer immediately overlying the kidneys and adrenals and is retracted by clamps.

are divided in the same line as the skin incision, exposing the lumbodorsal fascia and the costovertebral ligament. The ligament is carefully separated from the diaphragm and pleura and divided for its entire extent. The latter procedure frees the twelfth rib which may be reflected upward facilitating exposure.

Gerota's fascia is next encountered and is divided longitudinally as widely as pos-

sible, exposing the upper half of the kidney and the adrenal gland. Extreme care must be exercised in dissecting the adrenal if a tumor is present, since the slightest manipulation of the gland will often precipitate collapse of the patient. The gland should not be grasped with forceps of any type and traction of the tumor should be avoided. With the use of small pecten of gauze or cotton on a forcep, the several vascular

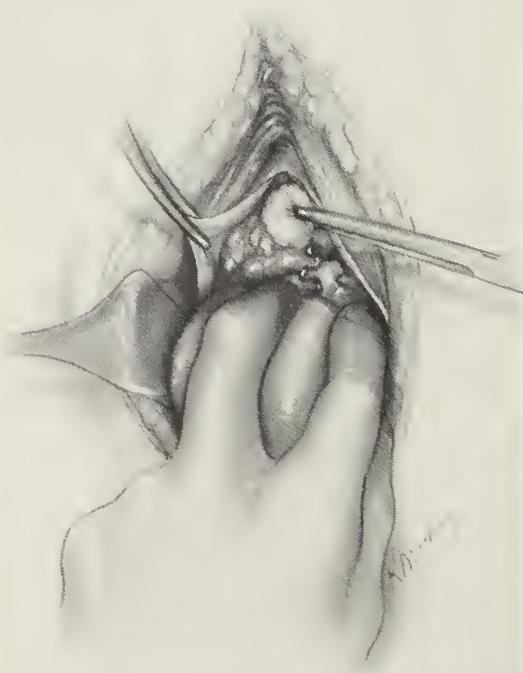


Figure 3. With the kidney retracted inferiorly, the adrenal tumor is carefully dissected from surrounding structures. Any undue manipulation must be avoided.

pedicles may be isolated and tied.

When the blood supply of the tumor is ligated, there may occur a precipitous fall of blood pressure so profound that death may rapidly ensue. The shock, if it occurs, is combated by the intra-arterial administration of 500-1000 cc. of blood within a period of several minutes, and by the intravenous use of large doses of 3-10 cc. of adrenalin given slowly, checking the blood pressure constantly. It is wise to have a team of trained personnel on hand during the operation in event shock occurs so that treatment may be started promptly.

The incision should be made on both sides before any attempt is made to remove an adrenal tumor in order to insure that the patient will have sufficient adrenal tissue remaining to sustain life. When the tumor is bilateral, one can often free the tumor sufficiently to leave some normal adrenal tissue on one or both sides.

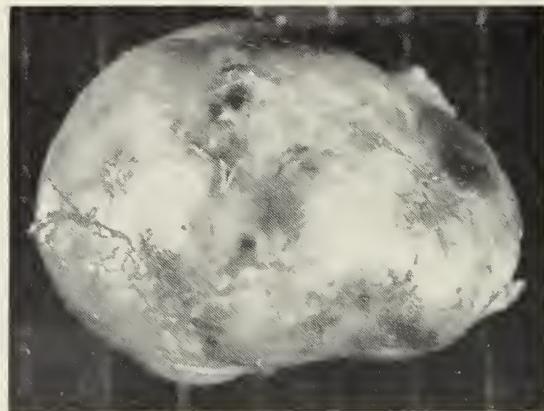


Figure 4. Pathologic specimen (Case 1). Pheochromocytoma. Cross-hatching of background represents centimeters.



Figure 5. Cross section of tumor in Figure 4.



Figure 6. Three adrenal tumors (Case 2). Adenoma of adrenal cortex.

Diagnosis

The diagnosis of adrenal tumor is based upon the association of the various symptom complexes with the disease. Once the condition is suspected, there are several definite diagnostic procedures which should be employed.

Perirenal air insufflation is considered by many to be of great diagnostic value.

We have not found it so, though occasionally a suprarenal mass may be demonstrated by this procedure. Pyelography is of value only when the kidney on the side involved is displaced by the tumor. X-ray study by spot films over the suprarenal area will sometimes show a mass.

Pheochromocytoma may be diagnosed by careful observation of the patient during an attack of paroxysmal hypertension. This may sometimes be induced by hyperventilation, massage over the adrenal area, change in posture, or by the use of drugs. One-tenth of a cubic centimeter of histamine acid phosphate 1:1,000 given intravenously will cause a paroxysm of hypertension in the presence of pheochromocytoma so severe as to produce collapse in some cases. In normal people, it produces little or no effect.

CASE REPORTS

Case 1. A 23-year-old white male was admitted to Emory University Hospital on October 23, 1947, with the complaint of severe headache. The patient had been rejected by the Army because of hypertension two years prior to admission and his headaches began soon thereafter. Within a few months of admission, the headaches increased in severity and were accompanied by weakness of the lower extremities, palpitation, and pitting edema of the feet and ankles, which would clear up overnight.

Physical examination revealed the following positive findings: Blood pressure readings were 260/120 in both arms, and 260/150 in both legs. Eye grounds showed severe constriction of retinal arteries. The heart was slightly enlarged with a grade 1 systolic murmur at the apex.

Laboratory studies were negative except for leukocytosis (18,000), and glycosuria (trace) in an occasional specimen of urine. Electrocardiogram showed left ventricular hypertrophy with frequent extrasystoles.

Amytal sedation, cold pressor test, and tetraethylammonium chloride caused no significant change in blood pressure. Following the injection of histamine intravenously, there was an immediate fall in blood pressure followed by a precipitous rise to 260/146. A severe reaction was produced, characterized by flushing, hyperventilation, numbness, and carpopedal spasm.

Excretory urograms were normal. Perirenal air studies failed to show a suprarenal mass on either side.

Bilateral simultaneous exploration of the adrenals was made on November 20, 1947. A normal adrenal was found on the right, while on the left there was an ovoid adrenal tumor measuring 6x4x3 cm. in size. The tumor was removed, and the patient's postoperative course was uneventful except for wound infection on the side of the tumor. Pathologic report indicated the tumor was a malignant atypical pheochromocytoma.

The patient's blood pressure returned to normal within a month and for two years has remained so.

Case 2. A 45-year-old white female was admitted to Emory University Hospital May 3, 1948, complaining of convulsions and severe headache of five years duration. For six months she had been having polydipsia, polyuria, dyspnea, and swelling of the feet and legs. She had gained 40 pounds in weight within a few months.

Physical examination was negative except for the

following findings: Blood pressure readings were 240/122 in right arm and 216/124 in the left arm. Eye grounds showed moderate evidence of arteriosclerosis. The pulse rate was rapid (96), and the heart was slightly enlarged to the left.

Laboratory studies were negative. There was a mild diabetic type curve observed on glucose tolerance test, but no glycosuria. Electrocardiogram showed a rapid rate and heart block, but no other changes of note.

Following the injection of mecholyl, the blood pressure fell moderately and returned to normal promptly. The histamine test proved diagnostic. Following the injection of histamine intravenously, there was an immediate fall in blood pressure to 140/100 with a subsequent rise to 290/180 accompanied by intense headache, sweating, nausea, and collapse.

Excretory urograms were normal. Perirenal air studies were not made.

Bilateral simultaneous exploration of the adrenals was made May 14, 1948. Both adrenal glands had been replaced by round, firm, encapsulated tumors measuring on the left 3x3x4 cm. and on the right 2x2x1.5 cm. In addition, on the right there was a tumor of ectopic adrenal tissue imbedded in the right kidney measuring 2x2x2 cm. All tumors were removed. A portion of the left normal adrenal gland measuring 2x8x8 mm. was preserved. Pathologic report of all three tumors was adenoma of adrenal cortical tissue.

The patient's blood pressure was reduced by surgery and her symptoms of hypertension have subsided.

Summary

1. A surgical technic for simultaneous exposure of the adrenal glands has been presented.
2. Methods for controlling shock during the operation have been emphasized.
3. Two cases have been reported.

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APPENDICES EPIPOICAE AS A CAUSE OF ACUTE ABDOMINAL PAIN

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The appendices epiploicae are fat filled pouches of peritoneum which occur along the taenia of the colon from the cecum to the rectum and vary greatly in number in different individuals. These tags of peritoneal fat are usually arranged in two rows along the anterior and posteromedial taeniae of the large intestine. The size is variable, the longest on record being 15 cm.¹

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They are usually longer in the sigmoid and in people who have lost weight rapidly.² Their blood supply consists of a single artery and vein, a fact which makes it easy to understand the pathologic changes in which they are most frequently involved. They also contain lymphatics and frequently small lymph nodes. The function of the appendages remains obscure.³ The fact that the free lying appendage which is attached to a mobile viscous such as the sigmoid colon makes it difficult to explain why torsion and infarction of the vessels does not occur more frequently.

In 1941, Griffin et al reported 160 cases of intra-abdominal abnormalities of the appendices epiploicae seen at the Mayo Clinic between 1919 and 1941.⁴ Only 10 of these cases presented acute symptoms which were the primary cause for operation. In 1943, Porter was able to find only 60 cases of torsion or acute inflammation of the appendices epiploicae in medical literature.⁵ Although there are some reports concerned with the experience of one or two cases there are few other large reports available in the English literature. We believe that the incidence of torsion with infarction of appendices epiploicae is more frequent than is apparent from the literature. Many cases are probably not reported because the frequent complications of this disease are not recognized or are not diagnosed.

Two cases of infarcted appendices epiploicae which were admitted to the surgical service of Grady Memorial Hospital within a period of 18 days are reported.

REPORT OF CASES

Case 1. E.D.B., A171780, a 31-year-old white male taxi driver was admitted to the surgical service of Grady Memorial Hospital on December 18, 1948, with a chief complaint of pain in the lower right quadrant of the abdomen for the preceding 24 hours. The history of his present illness revealed that while eating his evening meal on December 16, 1948, he became nauseated and noticed a dull, constant, non-radiating pain in the right lower quadrant of the abdomen. This pain gradually increased in intensity and was aggravated by movement. On the following morning he took a mild saline cathartic, which was followed in several hours by a loose stool with no relief of abdominal pain. There had been no fever, chills or dysuria.

His past history was noncontributory. He had had no previous operations.

Physical examination revealed a well developed and well nourished male lying quietly in bed. Admission temperature was 99° F., pulse 78, respiration 20, and blood pressure 120/70. The positive physical findings were confined to the abdominal and rectal examinations. Inspection of the abdomen revealed a moderately obese abdomen with prominent cutaneous striae in both flanks. There were no scars. No masses or viscera could be outlined by palpation. There was marked point tenderness over McBurney's point with definite muscle guarding. Local rebound and contralateral rebound tenderness were present. Peristalsis was normal. Moderate tenderness in the right half of the lower pelvis was elicited by digital rectal examination.

Admission urinalysis revealed no abnormalities; R.B.C. was 5,350,000, W.B.C. 10,600 with a differential of 68 neutrophiles, 30 lymphocytes and 2 monocytes.

A preoperative diagnosis of acute appendicitis was made and he was prepared for surgery. Spinal anesthesia was used and a lower transverse muscle splitting incision made. The sigmoid colon was found to be immediately beneath the incision where the point of maximum tenderness had been. Attached to this was a necrotic 3x1 cm. appendix epiploica which did not appear twisted. The base was ligated with 000 black silk and the gangrenous appendix epiploica excised. The incision was closed in layers with interrupted black silk sutures.

The pathologic report in part is as follows: The microscopic sections of the 2.5x2.1 cm. mass show it to be necrotic adipose tissue which is infarcted. The section of the appendix shows it to be essentially normal. Diagnosis: Epiploica appendage with infarction. Normal appendix.

The postoperative course was uneventful. The patient was given liquid diet and was ambulatory on the first postoperative day. He was discharged December 20, 1948 at which time he had a normal temperature and was eating an unrestricted diet.

Case 2. C.C.B., A165749, a 22-year-old white male shipping clerk was admitted to the surgical service of Grady Memorial Hospital on December 1, 1948, with a chief complaint of abdominal pain. He first noticed a slight dull aching pain about 36 hours prior to admission. About 12 hours after the onset of pain he became nauseated and later vomited. The pain was worse just to the left of the midline near the center of the lower abdomen. It was constant and gradually increased in severity.

Past history and family history were noncontributory.

Physical examination: Temperature was 100.2° F., pulse 80, respiration 20, and blood pressure 130/80. He was a well developed and well nourished male in no acute distress. Abnormal physical findings were confined to the abdominal and rectal examinations. The abdomen with slightly obese and without scars. Muscle rigidity and point tenderness to palpation were present in the left lower quadrant near the midline. Rebound tenderness in this area and contralateral rebound in the right lower quadrant were also present. Peristalsis was normal. No masses or viscera were palpable. Moderate tenderness high in the pelvis was elicited by rectal examination.

Urinalysis was negative; R.B.C., 5,000,000; Hb. 16.1 Gm.; W.B.C., 12,000, with 64 per cent neutrophiles and 36 per cent lymphocytes.

A tentative diagnosis of acute diverticulitis or acute appendicitis was made, and under spinal anesthesia an exploratory laparotomy was done through a transverse incision. A normal appendix was found and attached to the sigmoid colon in the region of the posterior taenia was a 3x3 cm. bluish black appendix epiploica. The base was ligated with a 000 silk tie and the appendix epiploica excised. An appendectomy was also done and the incision closed in layers with silk.

Pathologic report: A necrotic mass 2x1.4x0.4 cm. is observed. On microscopic examination acute infarction is seen. The appendix is 3 cm. long and 0.4 cm. wide. On microscopic section it shows marked scarring and obliteration of the appendix. The mucosa is absent and

there is slight lymphocytic infiltration.

Diagnosis: Appendix epiploica with infarction; scarred obliterated veriform appendix.

Postoperatively he had a fever as high as 100° F., but by the fourth day the temperature was normal. He was ambulatory on the second day and was given a soft diet on the third day. The patient was discharged on the fifth postoperative day.

Discussion

Infarction of the appendices epiploicae is not a common disease but it should be considered in the differential diagnosis of an acute abdominal emergency. Only one correct preoperative diagnosis of infarction of the appendices epiploicae has been reported.³ Griffin⁴ and Fiske⁵ have presented the clinical manifestations of this disease in excellent reviews of the subject.

It is apparent that infarction of the appendices epiploicae may simulate almost any other acute abdominal disease and among the erroneous preoperative diagnoses that have been made, cholelithiasis, torsion of an ovarian cyst, tubo-ovarian lesions, degenerative myoma of the uterus, intestinal obstruction and Meckel's diverticulum have been proposed. Acute appendicitis has been the most common preoperative diagnosis. Mechanical intestinal obstruction has been an occasional complication resulting from the intraperitoneal adhesions secondary to an acutely inflamed appendix epiploica.⁷ Fourteen of the 23 cases of infarction of the appendices epiploicae reported by Fiske³ were located on the sigmoid colon, seven involved the cecum, and one each involved the ascending and descending colon. Thus, the location of the lesion is of limited diagnostic value, but when it occurs in areas other than the cecum and ascending colon, infarction of the epiploica should be more strongly considered in the differential diagnosis. Certainly, when this disorder presents signs and symptoms in the right lower quadrant it cannot be differentiated from acute appendicitis.

Many believe that the obese individual is more liable to infarction of the appendices but others report no association of the two.^{3,4}

X-ray is rarely of aid in the differential diagnosis. X-ray evidence of a calcified appendices epiploica would suggest that a previous episode of abdominal pain might have been due to infarction with subsequent calcification.⁶

Summary

Two cases of infarction of appendices epiploicae have been presented and the pertinent literature on the subject has been reviewed.

The difficulty in making an accurate diagnosis was noted.

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ANTIBIOTIC DRUG PROVES VALUABLE FOR SKIN DISEASE

Successful use of an antibiotic drug, bacitracin, for impetigo and other skin diseases is reported in the September 12 *Journal of the American Medical Association*.

Bacitracin is thought to be especially valuable because it apparently causes few allergic reactions, say Drs. Jack L. Derzavis of Georgetown University School of Medicine, Washington, D. C., and J. Sidney Rice and Louis S. Leland of the U. S. Army Medical Corps, Washington, D. C.

In contrast, use of sulfa drugs and penicillin for skin diseases has the drawback that some patients become hypersensitive to these substances which they may need later for severe infections, such as pneumonia.

To determine human sensitivity to bacitracin, the doctors made patch tests of 150 adults by applying a small amount of the drug to the skin for 48 hours. All of the tests were negative for reaction to bacitracin.

A fortnight later, the doctors say, 50 of these same persons were retested by the patch method on the same site for another 48 hours. All test sites were again normal after the patches were removed.

"These results seemed indicative of low allergenicity and were subsequently corroborated by the occurrence of only one case of dermatitis of the contact type (inflammation of the skin from contact with a substance) among the 138 patients subsequently treated with bacitracin ointment," the doctors point out.

Only skin diseases which respond well to treatment with penicillin and the sulfa drugs were treated with bacitracin. Of the 138 patients, 128 were cured by the newer antibiotic drug, five were improved, and only five failed to improve.

Results against contagious impetigo are especially noteworthy, the doctors emphasize. Many of these eruptions were cured in 48 hours after treatment with bacitracin was begun.

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PROGRESS IN SAFETY

Life in our country is much safer now than it was a generation or more ago, incredible as that may seem in the light of the deplorably high toll of about 100,000 lives lost in accidents annually. Mortality records of Industrial policyholders of the Metropolitan Life Insurance Company dating back to 1911 show clearly that when the increasing average age of the insured is taken into account, the hazard of death by accident has been greatly reduced. In the years 1946-1948, accidental deaths among these policyholders at ages 1 to 74 years occurred at a rate of 13.1 per 100,000, or only a little over half as frequently as in the period 1911-1915, when the standardized death rate was 30.3 per 100,000. These insured, it should be said, are for the most part members of urban wage-earners' families, but their experience affords an excellent indication, if not an exact measure of the trend of accident mortality in the general population of the United States.

The improvement in the accident fatality record is the result of many factors. The modernization of homes, the introduction of new industrial products to supplant old ones, changes in industrial methods, and shifts in means of transportation, have all played a part. Many old hazards have been eliminated, even though some new ones have come into being.

Moreover, around 1911 the organized safety movement got its start in industry. Since then, it has broadened the scope of its activities to cover all phases of highway and home safety. The efforts of safety workers have undoubtedly contributed much to reduce the accident toll. If there had been no improvement in the past 40 years, and with the marked increase in the population, accidents would currently claim upward of 25,000 additional lives each year among the American people.

The marked changes in our mode of living are strikingly reflected in the trend of specific types of accidental injury among our insured. Every major type of accident, except automobile accidents and conflagrations, has recorded some improvement, as is evident from the table.

Fatal burns and scalds (exclusive of burns sustained in conflagrations) were only about one fifth as frequent in 1946-1948 as in 1911-1915, the rate dropping from 8.9 per 100,000 to 1.7. This was a greater reduction than for any of the other important types of accidents. As a result, burns and scalds dropped from fourth to seventh place among the types of accidental injury. Factors in this reduction include the increasing use of gas and electric ranges for cooking in place of the old coal stoves, the use of electricity for illumination, and the growing use of central heating plants. Safety education, too, merits a share of the credit.

A substantial part of the reduction in the total mortality from accidents is due to the decline in the mortality from falls. The death rate from this cause at ages 1 to 74 declined from 15.0 per 100,000 in 1911-1915 to 6.0 in 1946-1948, a drop of 60 percent. Falls, which claimed more victims than any other type of fatal accident in the early years of this study,

ACCIDENTAL AND UNSPECIFIED VIOLENCE†
FIVE-YEAR AVERAGES OF ANNUAL DEATH RATES* FROM SPECIFIED MEANS OF INJURY. TOTAL PERSONS, AGES 1 TO 74 YEARS
METROPOLITAN LIFE INSURANCE COMPANY, WEEKLY PREMIUM-PAYING INDUSTRIAL BUSINESS, 1911 TO 1948

MEANS OF INJURY	DEATH RATES* PER 100,000								PERCENT CHANGE 1946-1948 SINCE 1911-1915
	1946-1948	1941-1945	1936-1940	1931-1935	1926-1930	1921-1925	1916-1920	1911-1915	
Accidental and unspecified violence†.....	43.4	52.4	51.8	60.6	69.9	66.6	76.1	80.8	- 46.3
Poisoning by food.....	0.1	0.1	0.1	0.3	0.5	0.6	0.8	1.2	- 91.7
Other acute accidental poisonings (gas excepted)†.....	.7	.7	.8	1.1	1.4	1.6	1.9	2.4	- 70.8
Conflagration.....	1.8	1.5	1.0	1.0	1.2	1.1	1.0	1.2	+ 50.0
Burns (conflagration excepted).....	1.7	2.4	2.6	3.5	5.0	6.2	8.4	8.9	- 80.9
Drowning.....	4.9	5.5	5.1	6.2	7.0	7.5	8.9	11.3	- 56.6
Traumatism by firearms.....	1.1	1.6	1.0	1.4	1.6	1.8	2.1	1.8	- 38.9
Traumatism by fall.....	6.0	7.4	9.4	10.7	9.9	8.7	11.5	15.0	- 60.0
Traumatism in mines and quarries.....	.8	.9	.9	1.0	1.5	1.4	1.6	1.5	- 46.7
Traumatism by machines.....	.9	1.3	1.2	1.1	1.6	1.6	2.2	1.9	- 52.6
Railroad accidents.....	2.0	2.5	2.5	3.1	4.6	4.9	8.2	10.0	- 80.0
Railroad (primary)†.....	1.2	1.8	1.8	2.3	2.3	2.3	2.3	2.3	-
Streetcar accidents.....	.4	.5	.6	.9	1.5	2.0	2.9	3.6	- 88.9
Streetcar (primary)†.....	.3	.4	.5	.7	1.3	1.3	1.3	1.3	-
Motor vehicle accidents.....	16.4	16.7	21.2	23.7	21.1	15.7	10.2	4.1	+ 268.3
Automobile (primary)†.....	15.1	15.6	19.9	22.3	21.1	17.4	2.7	3.5	- 40.0
Traumatism by other vehicles.....	2.1	5.4	.6	.7	1.24	1.7	1.7	2.8	- 92.9
Excessive heat.....	2	2	.8	.9	.7	1.0	1.7	2.8	-
Electricity (lightning excepted).....	.6	.5	.4	.5	.9	1.0	1.1	.9	- 44.4
Accidental absorption of poisonous gas.....	1.1	1.1	1.1	1.7	3.0	3.1	3.1	3.1	-

*Death rates standardized for color, sex, and age.

†Excludes deaths from enemy action.

‡Excludes collisions with automobiles.

§Excludes asphyxiation by exhaust gas.

¶Excludes collisions between automobiles and railroad trains or streetcars.

†Includes deaths from poisoning by venomous animals for the period 1911 to 1921.

*Not available.

‡Death rate for the period 1922 to 1925.

§Includes deaths from motorcycle accidents.

has for a long time ranked second to motor vehicle accidents.

Drownings declined 57 per cent in the period under review. The emphasis placed in safety programs on the hazards of water sports and the need to learn how to swim, together with the provision of more play areas and guarded beaches, undoubtedly account for a large part of the improvement.

Sharp declines in mortality were recorded also for a number of other types of accidents. Notable was the falling off in railroad accident fatalities from a rate of 10.0 per 100,000 in 1911-1915 to 2.0 in 1946-1948. In large measure, this achievement has resulted from the organized safety activities of the railroads. Accidents involving street cars, as might be expected from the decreasing use of this means of transportation, took relatively few lives in 1946-1948, the rate for that period being 0.4 per 100,000 as compared with 3.6 in 1911-1915.

Separate figures for accidents due to horse-drawn vehicles and to airplanes are not available for the entire period. These types of mishaps are included in the table under the title "Traumatism by Other Vehicles." Horse-drawn vehicles were responsible for most of the deaths in this category in the early years, whereas airplane accidents have increased in importance. Here is another striking illustration of how new developments affect the nature of the nation's accident problem.

The most astounding change in the whole accident picture is the rise in the importance of the automobile as a cause of death. In 1946-1948 the standardized death rate at ages 1 to 74 years from this means of transportation was 15.1 per 100,000 as against 4.1 in 1911-1915, or more than 3½ times as great. Automobile accidents far outrank every other type of fatal injury, as they have for some time; in 1911-1915, they were fifth. To some degree, the upward trend in the mortality from automobile accidents is compensated by the decline in the death rate from other means of transportation which they supplanted. Fortunately, there is also evidence that something has been accomplished in reducing the loss of life from automobile mishaps. The average death rate for the postwar period 1946-1948 was the lowest in at least a quarter of a century, and this was accomplished in the face of vastly increased operating mileage.

As already noted, conflagration was the only other type of accident to record an increased mortality. In 1946-1948, the death rate from this cause was 1.8 per 100,000 as compared with 1.2 in 1911-1915. It is disappointing to note that for at least a third of a century little or no progress has been made in reducing the rate of mortality resulting from conflagration.

Despite the substantial improvement recorded

in our study, there is no room for complacency. Thoughtful people can feel nothing but chagrin when they read the annual record of some 100,000 killed, some 10,000,000 injured, and billions of dollars in property destroyed in our country by accidents of one kind or another. The American people should give active support to the National Safety Council, the American Red Cross, and other organizations devoting their time and energy to protect life and limb. More important still, people need to act safely themselves, and by their example induce others to do so. The safety movement has been given great impetus by the organization of the President's Highway Safety Conference and the President's Conference on Industrial Safety. There is reason to believe that further progress will be made as a result of these meetings.—*Statistical Bulletin*, Metropolitan Life Insurance Co., Sept. 1949.

UNWHOLESOME HOME LIFE CALLED BREEDER OF RHEUMATIC FEVER

Impoverished and disrupted homes are breeders of rheumatic fever, according to Dr. Robert L. Jackson of the University of Iowa, Iowa City, writing in the October 15 *Journal of the American Medical Association*.

Rheumatic fever, an infectious disease which runs a long course and which frequently results in a damaged heart, causes more deaths among children than other communicable diseases combined. It has been estimated that 2 per cent of school children of the United States have heart disease as a result of the rheumatic condition.

"The disease tends to breed in families where serious, long-standing social problems exist," Dr. Jackson says. "In our experience the economic factors are secondary in importance to the sociologic factors, because society has ways and means of helping the needy."

"Students of rheumatic fever cannot fail to learn how important wholesome family life is to the welfare of children and how devastating immoral practices, such as selfishness, greed, drunkenness, promiscuity and divorce, are to the wholesome family life. Only when an attack on these complicated detrimental forces is made, utilizing supernatural and natural resources, can one hope for the eradication of this scourge of childhood."

Among symptoms of rheumatic fever are low and continuing fever, joint and muscular pain, rapid heart beat, repeated nosebleed without any apparent cause, paleness, poor appetite, loss of weight or failure to gain weight, jerky movements, tiredness and frequent sore throat. The disease has a tendency to recur, which is dangerous.

Treatment should be prompt in the hope of preventing a damaged heart and to modify the duration of the attack, says Dr. Jackson.

"Too frequently adequate care is obtained only after the child's condition has become critical because of progressive cardiac involvement," he adds. "Early treatment and long-range plan of care have proved to be the best safeguards for lowering morbidity and mortality. They also provide an opportunity for the child and his family to obtain professional guidance."

Dr. Jackson cites the histories of 266 Iowa rheumatic children. A study of these reveals that if the disease is definitely inactive an excellent diet and wholesome living conditions will practically eliminate the chance of recurrence with a heart damage, he says.

During the acute stage of the disease the child's most urgent need is complete rest in bed, he says, adding:

"When the rheumatic child comes under medical care the home environment of the child should be evaluated by an experienced and understanding medical social worker. When it is found inadequate, as it most frequently is, the work of raising the level of the environment should be started immediately.

"In our clinic special emphasis is placed on insuring a good dietary regimen for the child and for his family. This, however, is not the only phase of family rehabilitation that is undertaken. When the family social situation is poor, great effort is made to improve it, too. In short we try to insure a good environment for the rheumatic child to live in. It is our feeling that this is the factor which protects against recurrence of the disease, and in many instances it is the only one the child will need.

"The family of each child is instructed regarding the importance of an adequate diet, which should include for daily consumption: 1 quart of milk; one or two eggs; one serving of meat, fish, fowl or liver; two vegetables (one-half cup is considered a medium serving); one orange, apple or tomato; one other fruit in addition; one teaspoon or equivalent of cod liver oil; six teaspoons of butter or margarine.

"They are also told that other foods, such as bread, cereal and potatoes, can be added to satisfy the appetite and maintain correct weight, but in no circumstances are they to replace any of the foods previously named: cereal is not to be served more than once daily. Rather, the child is to be encouraged to eat larger quantities of fruits and vegetables; varieties of these are to be used, so the child will not form likes and dislikes.

"Each family is advised to have the child sleep in a room of his own whenever possible, or at least to sleep alone, and to have about ten hours of rest each night. The importance of proper clothing is stressed, as well as control of the temperature and the humidity of the home.

"When the disease becomes subacute, or is

in the fourth phase, he will require weeks or months of convalescent care before he can be allowed to resume physical activity. Convalescent care is best given in a sanatorium where there are adequate facilities to meet the physical, emotional, intellectual and spiritual needs of the child. He should remain under the regimen of convalescent care until his disease is definitely inactivated, and then activity should be resumed gradually.

"The child who has spent his subacute phase in a convalescent home or ward after he has proved that he can endure limited physical activity without any signs or symptoms of cardiac embarrassment is ready for home care. Concurrent with the care of the child is the education of the community to help the parents establish a wholesome environment for the patient and other members of the family."

REPORTS NO UNFAVORABLE REACTION FROM ARTHRITIS TREATMENT WITH ACTH

Two patients crippled with arthritis who have been undergoing treatment with ACTH—one since May 5 and the other since June 6—are experiencing continued relief under maintenance dosages without any serious reactions.

This report is made by Dr. David E. Markson, associate professor of medicine at Northwestern University Medical School, Chicago, in the October 15 *Journal of the American Medical Association*.

The medical profession has been particularly concerned about the possibilities that ACTH (pituitary adrenocorticotropic hormone) may have toxic effects after prolonged usage although its administration brings miraculous and immediate relief to patients suffering from arthritis.

One patient was treated in the Wesley Memorial Hospital, Chicago, for four months and the other for three months. Upon their discharge they were continued on maintenance dosage of the compound and checked at weekly intervals.

"Serious reactions or symptoms from treatment have not been noted," says Dr. Markson. "It would be presumptuous at this point in the investigation of its effect to consider ACTH as a cure for arthritis. However, in my opinion no other agent could have accomplished so much in so short a time. Only the future will give the final answer to the possible dangers from further prolonged treatment with this endocrine substance.

"It has not been considered that these patients are cured of arthritis as they both have continued their maintenance dosage of the compound. In both of the patients, the return to the approximation of their original status was noted when administration of the medicament was discontinued for three days. It is believed

that, as in the treatment of diabetes, the maintenance dosage must be continued indefinitely.

"It is believed that ACTH has opened a new approach to the treatment of rheumatoid arthritis, and that the endocrine substance, like insulin in the treatment of diabetes, may keep these patients comfortable and restore them from invalidism to productive, useful lives in their former occupations."

MATERNAL MORTALITY RATES AGAIN LOWER

Provisional figures on maternal mortality in the United States collected by correspondence with state public health agencies indicate a continuation of the downward trend in maternal mortality rates reported in *The Journal* (A. M. A.) last May. The United States will undoubtedly show a rate of not more than 1.2

*Maternal Mortality, 1933, 1947 and 1948
(Death per Thousand Live Births)*

State	1933	1947	1948
Alabama	7.5	2.6	2.3
Arizona	6.5	1.8	1.6
Arkansas	7.8	1.8	2.1
California	4.6	1.0	0.9
Colorado	6.2	1.3	1.1
Connecticut	5.0	0.7	0.6
Delaware	6.9	0.8	0.9
District of Columbia	5.0	1.1	0.7
Florida	11.5	2.2	1.9
Georgia	7.5	2.5	2.3
Idaho	4.3	1.0	0.7
Illinois	5.0	1.0	0.8
Indiana	5.9	1.1	1.0
Iowa	5.3	0.9	0.7
Kansas	5.5	1.0	0.9
Kentucky	5.3	1.8	1.5
Louisiana	8.4	1.9	1.6
Maine	7.0	1.5	0.7
Maryland	5.0	1.0	0.9
Massachusetts	6.7	0.9	0.7
Michigan	6.1	1.1	0.8
Minnesota	4.4	0.6	0.7
Mississippi	7.3	2.6	2.7
Missouri	5.8	1.4	1.0
Montana	5.7	1.1	0.9
Nebraska	4.6	1.1	0.6
Nevada	8.1	1.2	1.6
New Hampshire	6.9	1.1	1.2
New Jersey	5.4	1.0	0.8
New Mexico	8.6	2.1	2.3
New York	6.2	1.0	0.9
North Carolina	6.8	1.7	1.9
North Dakota	4.9	1.1	1.1
Ohio	6.1	1.2	0.9
Oklahoma	6.5	1.7	1.2
Oregon	5.5	0.9	0.4
Pennsylvania	5.8	1.3	0.7
Rhode Island	5.7	0.9	0.9*
South Carolina	8.0	2.6	2.3
South Dakota	4.8	1.0	0.7
Tennessee	6.0	1.7	1.8
Texas	7.7	1.5	1.6
Utah	4.5	0.8	0.6
Vermont	5.7	1.2	1.0
Virginia	6.3	1.7	1.4
Washington	6.4	1.1	0.7
West Virginia	5.7	1.6	1.2
Wisconsin	5.0	1.1	1.0
Wyoming	5.7	0.8	1.1
United States	6.2	1.3	1.2

* 1947 data.

Sources: Vital Statistic Rates in the United States, 1900-1940, United States Department of Commerce, 1940. Maternal Mortality Rates by States, 1947, Federal Security Agency, United States Public Health Service, National Office of Vital Statistics, Release (not dated). Unpublished provisional reports for 1948 from state health departments.

maternal deaths per thousand live births in

1948; a drop of 0.1 from the previous year.

The provisional maternal mortality rates by states are shown in the accompanying table. Twenty-seven states and the District of Columbia have rates at least as low as maternal death per thousand live births. The best state record was the phenomenal rate of 0.4 reported for Oregon. While this rate is provisional, Oregon made an outstanding record in 1948. Three states—Connecticut, Nebraska and Utah—now hold second place, each with a rate of 0.6.

Minnesota had the lowest rate, 0.6, in 1947. The highest rate in 1948 was 2.7, for Mississippi. In 1947, the highest rate, 2.6, was reported for Mississippi, Alabama and South Carolina; the rate for the latter two states declined to 2.3 in 1948. Considering the differences in climate and racial composition, some students of vital statistics may consider the drop from 2.6 to 2.3 for Alabama and South Carolina an accomplishment as great as or greater, from the social point of view, than the reduction for Oregon from 0.9 in 1947 to 0.4 in 1948.

For thirty-seven states and the District of Columbia, the 1948 rates were at least as low as those reported in 1947; the decrease ranged from 0.1 to 0.8. In only eleven states were the rates higher in 1948, and the increases were small—0.1 to 0.4. The progress against maternal mortality in the United States continues to be general throughout the entire country.

Many other nations are also experiencing a considerable drop in their maternal mortality rates. Recently available figures indicate that New Zealand (whites only) experienced only 1.1 maternal deaths per thousand live births in 1947.¹ Probably a number of the European countries that have had outstanding health records in the past also have rates close to this. Obviously future decreases in the number of maternal deaths per thousand live births will be smaller. There are enough states in the United States with maternal mortality rates above 1.0, however, to anticipate some further decreases in the rates for individual states.

The spread between the rates of the healthier countries continued to narrow.² As maternal mortality rates approach the level of 1.0, they will no longer be a gage for comparison of the health of nations. In fact, a spread of only 0.1 or 0.2 between the rates for any two nations may well be statistically insignificant; that is, the small differences may be due to errors in reporting the number of maternal deaths and live births.

Since 1933, the United States has made tremendous progress, with the rate declining from 6.2 to 1.2 in fifteen years; in 1947 the rates for whites and nonwhites were 4.5 (5.6-1.1) and 6.4 (9.7-3.3) lower than in 1933. The spread between the highest and lowest state rate decreased from 7.2 (11.5-4.3) in 1933 to 2.3

(2.7-0.4) in 1948. More important than the decline for the whole nation is the fact that the highest state rate in 1948 was 2.7, which was less than two-thirds of the rate, 4.3, for the best state in 1933. To the extent that this one vital statistic can be considered an index of health, the charge that rapid improvement in health has been limited to the wealthier sections of the country is clearly and emphatically refuted.

1. The official vital statistics reports for New Zealand feature the maternal mortality rate for whites; rarely is the rate for nonwhites given. The 1947 United States rates were 1.1 for whites only and 1.3 for all races; the nonwhite rate in 1947 was 3.3. The nonwhite rates for New Zealand do not appear in the most recent edition of the "New Zealand Official Year Book." If the over-all rate for New Zealand was actually lower in 1947 than for the United States, the difference could be attributed to a smaller proportion of nonwhites in New Zealand.

2. Sweden, for example, was 3.1 below the United States rate in 1933 despite the fact that less than one-fifth of the births were attended by physicians. Since the United States rate for 1948 was 1.2, the 1948 rate for Sweden, which is not now available, could not be more than 1.2 under the United States rate.

PENICILLIN CURES CONGENITAL SYPHILIS

Babies born with syphilis can be cured in almost all cases in which treatment with penicillin is begun before the age of three months, a study made by three Philadelphia doctors shows.

The doctors — Elizabeth Kirk Rose, Paul György, and Norman R. Ingraham, Jr.—report their findings in the *American Journal of Diseases of Children*, published by the American Medical Association. The study was made under a grant from the National Institute of Health.

Sixty children were studied over an average period of two years. Seven infants died during the study, two of causes other than syphilis. The remaining five who died were small, unusually weak infants and their deaths were not thought to be related to penicillin therapy, the doctors say.

Of the 48 babies treated with penicillin by injections into the muscles, 37 apparently were cured and 10 were free of symptoms although blood tests remained positive for the disease. Results in one case could not be evaluated because the child was not available for study.

Five children were treated with penicillin given by mouth. Four infants responded "satisfactorily" and one child two and a half years of age responded "well" although his blood test remained positive.

"The age of the patient at the onset of treatment, rather than the dosage, type, or means of administration of penicillin, seemed to be the chief factor in determining satisfactory response," the doctors point out. "Cures approached 100 per cent when treatment was commenced before the third month of life."

WRITER GIVES TIPS ON PREPARING CHILD FOR SCHOOL

Mothers can help children over the often diffi-

cult hurdle of that first day in school by teaching them independence in seemingly trivial matters, says Bess Ritter of Yonkers, N. Y., in the September issue of *Hygeia*, health magazine of the American Medical Association.

A child's ability to give his full name and address and his father's name and occupation without assistance on the first day of kindergarten may seem like a small accomplishment, but it is one which may help him to get started "on the right foot," she points out.

An equally small matter, but one that is important to the child, is the ability to put on his own wraps without assistance.

Children will benefit from being able to handle a handkerchief without adult help, carry out simple directions without repeated explanations from the persons who give them, and get along with children of their own age without depending on a grownup to unscramble a squabble, she indicates.

Driving children into learning letters, numbers, and short primer words is not advisable, however, although "quick" children may pick up a little such knowledge without teaching before they go to school.

"What your child needs can be summed up in one word: independence—and that he gets from the atmosphere of your home as much as from anything you teach him," she comments. "If you give him his birthright of independence, the strange surroundings will mean to him not fear but interest and opportunity."

AMERICAN CANCER SOCIETY

The American Cancer Society has published its annual report for the year ending August 31, 1949. The report should be of considerable interest to the physicians of Georgia and their co-workers who are actively engaged in cancer diagnosis and prevention. It is for these reasons that a brief review of the account is presented to *The Journal*.

During the year three new enterprises were established. First, a new publication, CANCER, was issued, which is a bi-monthly journal for professional groups. The magazine drew an enthusiastic response, and by January there were 4,100 subscribers. Second, the first of a series of six sound films on the technic of cancer diagnosis was made. The films were sponsored by The National Cancer Institute for use by doctors, nurses, hospital staffs and medical students. Third, monographs on early cancer recognition were printed. These will be sent to 143,000 physicians. They were prepared by outstanding authorities on cancer, such as Dr. Shields Warren and Dr. Hayes Martin. The monographs are well written, and illustrated by photographs of various lesions which may be encountered, and are liberally endowed with statistics which are helpful.

Among other fields of activity, including im-

provement of working relationship with professional organizations, schools and physicians, the society promoted a conference of exfoliative pathology; a symposium on breast cancer with the American Radium Society; and have gone forward with the establishment of 20 fellowships in clinical cancer at institutions offering residencies. Great interest has been continued in furthering public education about cancer, and efforts have been made to teach the public that cancer is not a hopeless disease. A campaign was planned to destroy fear largely around the slogan that everyone should "Fight Cancer with Knowledge." It seems of paramount interest to know also the result of a poll made at the request of the society by the Survey Research Center of the University of Michigan, who interviewed a cross-section of men and women in 1943. Half of those interviewed knew *not one single cancer symptom*. Twenty-five per cent could recall only *one symptom*, and only three per cent knew four or more! Forty-nine per cent of those interrogated did not know a single sign of those ordinarily understood as being among the cardinal symptoms of cancer. In an effort to teach the people about cancer the society used pamphlets, folders, exhibits, posters, newspaper and magazine articles, films and radio programs, working in conjunction with its 60 divisions. Literature distributed reached the astounding number of 11,055,000 pieces during the year.

Another attainment was made possible through the activities of the state and local levels of the American Cancer Society for reaching groups at the national level. The local units are distributing pamphlets, "Fact and Forecasts", which give basic cancer facts, through key persons who serve as liaison agents with the society. More than 250,000 copies of the pamphlets have been issued to local units who represent the total number of 55,750,000 persons! Furthermore, the society helped prepare and place cancer articles in national magazines with a combined circulation of 42,000,000, and in combination used a 15-minute radio program, *It Can Happen To You*, on 167 stations.

Of especial interest is the report in reference to various aspects of the society's program concerned with research. The primary attack deals with several projects largely directed with learning more about the "knowledge of normal and malignant growth." Grants have been made to 81 universities totaling \$1,892,095.00 for investigation along five major lines: (a) heredity, (b) carcinogenic agents, (c) toxic or infectious agents (virus), (d) chemistry of the living cell, and (e) hormones. From these fields, interesting facts are gradually being brought to light. Amino acids are better understood in relationship to cell metabolism. Radioactive isotopes are being developed, and tagged atoms can be traced through the body mechanism. Diet, also the importance of food in cancer, is being estab-

lished. It would appear that cancer can be starved. A substitute for morphine has been developed, called metapon.

Several pages of the report deal with finances. Everyone will be pleased to know that the public has liberally contributed to the society whenever demands have been made. The road in cancer prevention has traveled a long way since 1913 when the American Cancer Society budget was only \$10,000.00. In 30 years the amount has grown to \$356,000.00, and in 1943 contributions totaled \$13,221,000.00. In addition to large public support, the society now has gifts from many large organizations, such as: the CIO, Federal employees, the Post Office Department; Chain Stores; Grants, Kresge, McCrory's, Sears, Roebuck, and others. The overall National Headquarters' budget is largely divided as follows: \$7,920,000.00 or 60 per cent is for division programs; for research, \$3,300,000.00; for the national office, \$1,980,000.00. Only \$348,000.00 of this latter fund is used in administration. The latter figures are given to emphasize how little of the fund is utilized for the national office.

The report unquestionably establishes the American Cancer Society as the outstanding organization of its character in the United States, and probably in the world. We hear many arguments about merging the various organizations of this type under a single broad financial group, perhaps such as the Community Chest. There are many very creditable reasons why such an arrangement might be made; however, when we read of such outstanding accomplishments as have been made in cancer control by the American Cancer Society, one would naturally hesitate a long, long time before advising any interruption, in part or otherwise, with the organization as it is now functioning. It is with pride that we here in Georgia have been a part in this great organization through the efforts and support of our doctors and citizens in the State who administer the affairs locally.

It is apparent that the people have been generous in supporting the American Cancer Society, and no one can deny the fact that the Society has fulfilled every expectation made of them. We are very happy, therefore, to congratulate the officers and the members of this grand organization on their outstanding results.

JACK C. NORRIS, M. D.

HEALTHGRAM

Exposure to fumes and gases could not be proved to favor the onset of tuberculosis; neither lead absorption and intoxication, nor mill dust and foundry employment are associated with the development of tuberculosis. High temperatures and humidity are without significant influence upon tuberculosis, nor are any theoretical reasons advanced to the effect that they should be. Radiant heat in the steel industry causes no tuberculosis in those exposed. Rutherford T. Johnstone, Am. Rev. Tuberc., Oct., 1948.

GEORGIA DEPARTMENT OF PUBLIC HEALTH

EASTERN EQUINE ENCEPHALOMYELITIS

Present Status of This Disease in Georgia

Recent experience with Eastern Equine Encephalomyelitis in Georgia, including three fatal human cases, makes it appear that this disease is worthy of attention. A summary of present information concerning the epidemiology of E.E.E. in Georgia has therefore been prepared in the hope that it will be of value to practicing physicians.

The presumptively positive human cases referred to above occurred in young children in Charlton County, Georgia; two of them in the rural Uptonville community and the third on the outskirts of Folkston.

In each of these cases routine laboratory work was entirely negative for bacterial infection and the spinal fluid was apparently normal except for increased protein and cell count. While discussion of the clinical characteristics of these cases is beyond the scope of this report, each case was reported in some detail by the attending physicians as an aid to investigation of the epidemiologic problems involved. Accordingly, it can be pointed out that onset of the disease was sudden and dramatic, characterized by nausea, vomiting and high fever. In two cases headache was a pronounced early symptom. After 24-36 hours, neurologic symptoms appeared, the patients went into coma with occasional convulsions which were apparently generalized, clonic in nature, and sudden in onset. The first two patients died on June 21, 1949 before opportunity offered for serologic examination for specific antibodies against Eastern Equine Encephalomyelitis. Neither was it possible to obtain postmortem CNS specimens for attempted isolation of the virus of E.E.E. However, a horse ill with the symptoms characteristic of E.E.E. was reported on June 23 from a farm 300 yards from the home of the Uptonville cases. This animal was destroyed and the frozen brain sent to the National Institute of Health, Bethesda, Md., which subsequently reported the isolation of Eastern Equine Encephalomyelitis virus.

A blood specimen was taken from case 3 on the 6th day of illness in order to have an acute specimen (ordinarily taken by the 4th day) for comparison with a convalescent specimen (3 or 4 weeks after onset) should the patient survive. The patient succumbed two days later but permission for postmortem was refused and virus isolation could not be essayed. However, the single blood specimen taken showed a neutralization index against E.E.E. virus of 1.667. In view of the age of the patient (7 mos.), this is considered presumptive evidence of infection.

A fourth patient, M. W., W. F., 3, from

Appling County became ill on August 28, 1949, with symptoms very similar to those described for the preceding cases. The child had a high fever, was comatose, manifested periodic convulsions, and was apparently quite as ill as the preceding patients. After 48 hours, the convulsions became less frequent, finally subsiding into ataxia as the fever remitted. The patient was dismissed from the hospital after 10 days as recovered. There are no apparent sequelae to date.

Acute and convalescent blood specimens were taken from this patient. Both were negative for specific antibodies against E.E.E. virus on neutralization tests. While this finding does not rule out the possibility of E.E.E., it must be considered as strong evidence against such an hypothesis.

Blood from 13 horses was examined in 1949 by the U. S. P. H. S. Virus Laboratory, Montgomery, Alabama. In only three cases was a suspected animal reported negative for E.E.E. on all tests performed. Eleven of 14 horses gave positive reactions in some degree, the majority being positive on more than one test.

Despite the fact that mosquitoes have long been suspected on epidemiologic grounds of being the vectors of E.E.E., Howitt and associates⁵ have only recently published the first account of the recovery of the virus of E.E.E. from mosquitoes taken in nature. This is of particular interest since the recovery was made from one lot of 70 *Mansonia perturbans* mosquitoes collected by a joint field party of the U. S. Public Health Service, Communicable Disease Center, and the Georgia Department of Health in Burke and Jenkins Counties, Georgia. The chicken mite, *Dermanyssus gallinae*, and a chicken louse, *Eomenacanthus stramineus*, had previously been found infected in the field.⁴

Six species of *Aedes* mosquitoes have been found capable of transmitting E.E.E. virus in the laboratory. Four of these species occur in considerable numbers in Georgia. All attempts to transmit E.E.E. experimentally with *Culex* and *Anopheles* mosquitoes have failed.

Mansonia perturbans is a speckled brown and white mosquito which is at times a serious pest. The adults are strong fliers and vicious biters which feed persistently on warm blooded animals including horses and chickens. *M. perturbans*, if it is consistently infectable with E.E.E. in nature, is a source of considerable potential danger. The problem is further augmented by the fact that *M. perturbans* does not ordinarily rest on the walls of dwellings or barns, but enters only to bite and leaves after feeding to rest in surrounding vegetation. Residual spraying of houses and barns with DDT is therefore only partially effective in controlling *Mansonia*.

Finally, the larvae and pupae of *Mansonia* have specially modified breathing tubes which penetrate the soft tissues of aquatic plants to obtain oxygen. They do not rise to the surface until ready to transform to the adult stage. Therefore, ordinary surface larvicides, including DDT—oil mixtures, are ineffective against *Mansonia*. "In limited areas practical control can be obtained by destroying the host plants or by draining the ponds for a short period during the winter or early spring before the adults emerge".⁶

An epidemic of Eastern Equine Encephalomyelitis occurred in Massachusetts in 1938. At that time the virus was recovered from human CNS tissue for the first time by Fothergill, et al.³ This outbreak involved 44 persons of whom 75 per cent were under 10 years of age, 25 per cent were less than one year, and only 15 per cent were 21 years of age. The mortality rate was 65 per cent, and of the survivors, 60 per cent were left with residual damage, ranging from emotional instability to paralysis and mental deterioration². "In the same area and at the same time, 90 per cent of 248 horses which had encephalitis died".⁷

During the fall of 1938 the virus was detected in pheasants and in a pigeon taken in the affected area in Massachusetts. In following this lead, Ten Broeck^{8,9} demonstrated that birds may have viremia without apparent infection and was led to conclude that birds are more likely to act as reservoir hosts than horses. Specific antibodies against E.E.E. were found in 1948 in the cormorant¹. Antibodies were also found in the chicken. Field surveys are now under way in cooperation with the Communicable Disease Center in an effort to determine the extent of experience with E.E.E. among both the bird and the horse populations of areas in Georgia in which the infection may be widespread.

Summary

It therefore appears that man and the horse are incidental victims of a disease which is benign in its accustomed avian hosts but is virulent in the extreme in other warmblooded animals. The part played by the horse in maintaining the infection in endemic areas deserves further study. It further appears that the mosquito vectors of E.E.E. breed in areas likely to be frequented by large number of migratory aquatic birds. In addition, there is some evidence that massive biting by mosquitoes is essential to transmission of the disease. It is not known whether this apparent phenomenon is due to the obvious possibility that comparatively few mosquitoes are infected, or to the possibility that there is a physiologic resistance, increasing with age, to the passage of peripherally introduced virus which can be overcome only by a large inoculum.

It seems clear then, that the greatest danger exists for young individuals and that protective

anti-mosquito measures should be taken in infected areas. These should include adequate screening, the use of bed nets for infants and young children, aerosol space sprays, pond larvicide, and finally DDT residual sprays. The latter measures should not be relied on to the exclusion of any of the others suggested. Horses in the affected areas should be immunized and given yearly booster shots.

Conclusions

1. Eastern Equine Encephalomyelitis is widely distributed over the southern portion of Georgia.

2. *Mansonia perturbans* Walker has been incriminated as a vector of E.E.E. in Georgia.

3. Surface larvicide of ponds and residual house spraying with DDT should not be depended upon as primary control measures for *Mansonia perturbans*.

4. Closure of sleeping spaces with screens, and possibly bed nets, plus destruction of mosquitoes within the enclosure with space sprays is to be recommended.

5. Especial care should be taken in infected areas to prevent massive biting of young children by mosquitoes.

6. All horses in areas known to be infected or adjacent to infected areas should be immunized against E.E.E. and given periodic booster shots.

JOHN E. McCROAN, JR., Ph. D.

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Georgia Department of Public Health.

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SURGEONS TO MEET

A two-day sectional meeting of the American College of Surgeons will be held at the Belvoir-Biltmore Hotel, Belleair, Florida, on January 9 and 10. The section consists of the states of Virginia, North Carolina, South Carolina, Georgia, Mississippi, Alabama, and Florida. This meeting will consist of all day and evening conferences on timely surgical subjects and separate meetings for hospital personnel where hospital problems will be considered at panels and round table discussions.

The surgical program will include some new surgical motion picture films, papers and panels on such subjects as: Arterial Lesions of the Extremities, Hormone Therapy in Breast Lesions, Intestinal Obstruction, Gastric and Intestinal Intubation, Treatment of Head Injuries, Surgery of the Hand, Surgical Lesions of the Stomach, Caesarean Section, Management of Uterine Prolapse, the Management of Traumatic Conditions, and a Symposium on Cancer.

Members of the Medical Association of Georgia and personnel of Georgia hospitals are invited to attend this meeting. The Fellows of the College in Florida wish to assure all visitors that adequate hotel accommodations will be available and that they will be made most welcome at all of the sessions.

WOMAN'S AUXILIARY TO THE MEDICAL ASSOCIATION OF GEORGIA

MESSAGE FROM THE PRESIDENT

This year I feel that our usual objectives should be subordinated to the one big issue facing the American people . . . shall this country of ours have voluntary prepayment of medical care or shall it have compulsory health insurance? The latter is the first step toward totalitarianism and would be repugnant to the majority of Americans. We all know far too little about the various compulsory health insurance plans that have been presented in Congress. We must learn all we can about them but we must also learn what plans the American Medical Association has formulated to offer in exchange for this completely un-American idea.

First, we must learn, so we can carry that knowledge with us everywhere, either by speeches or speakers approved by the county advisory boards or in informal chats with our neighbors over the back fence. The whole country is interested in this vital issue and if we are able to show people that the voluntary way is the better way we will be adding greatly to the future health of America. We must co-operate with the AMA legislative public relations programs and the public relations program of the State, under one of our own advisers, Dr. Eustace A. Allen, as chairman of public relations.

The plans of the auxiliary program, legislative and public relations chairmen necessarily overlap in this work, for each has a part to do in it. I urge each county president to appoint vital, interested members to these important chairmanships in her own organization.

We who know medicine as it has been, know that the Utopian dream of benefit from the cradle to the grave can only mean less adequate care for the great masses and the bankruptcy of the nation. Our Auxiliary is in a unique position as it stands between the layman and the medical profession and ours is an obligation to interpret the principles and aims of the physician to the public. But we can only do that when we know those principles and aims. So let us study diligently and then "Fight With Knowledge."

EMILY BOYD ROGERS,
(MRS. J. HARRY)

* * *

Theme for 1949-1950
"FIGHT WITH KNOWLEDGE"

1. Form study groups immediately, get the knowledge of compulsory health insurance bills introduced in Congress and the knowledge of the American Medical Association 12-point program. Learn what we are fighting AGAINST and FOR, then FIGHT.

2. Participate in all health activities and public relation programs as outlined by the

Medical Association of Georgia.

3. Every doctor's wife an Auxiliary member and an active participant in Auxiliary activities.

4. Assist in forming health councils in Georgia counties, either in cooperation with other organizations or under Auxiliary sponsorship, whichever is feasible for that particular community.

5. Promote subscriptions to *Hygeia*, the national health magazine published by the American Medical Association and to *The Bulletin*, published by the Woman's Auxiliary to the American Medical Association.

6. Be ready to entertain county, district and state medical societies as asked, thus promoting fellowship among doctors and their families.

(The above objectives were approved by the Advisory Committee of the Medical Association of Georgia, meeting in joint session with the executive board of the Woman's Auxiliary on Tuesday, August 9 in Atlanta, Georgia.)

* * *

SEVENTH DISTRICT MEDICAL AUXILIARY: Members of the Woman's Auxiliary to the Seventh District Medical Society enjoyed an interesting meeting in the parlors of the First Methodist Church, Marietta, October 5, and one that was most informative.

Welcoming the group was Mrs. W. H. Benson, Jr., president of the Woman's Auxiliary to the Cobb County Medical Society, while Mrs. J. A. Billings, of Calhoun, responded. Mrs. Ralph Fowler presided over the afternoon's program in the absence of the District President, Mrs. William U. Hyden, of Trion. There was a reading of minutes followed by reports from county auxiliaries.

A large attendance showed the interest of members in the two addresses listed on the roster, "Rehabilitation," by Mr. W. C. Dendy, and "Fight with Knowledge," by Mrs. Harry Rogers, both of Atlanta. Each speaker gave those present much timely information and urged that individuals make every effort to become well informed concerning the topics discussed.

The social committee acting as hostesses for the Woman's Auxiliary to the Cobb County Medical Society was headed by Mrs. Earl Benson, who was assisted by Mrs. Murl Hagood, Mrs. Bruce Burleigh, Mrs. C. M. Garland, of Smyrna, and Mrs. Regina Rambo Benson. Following the business meeting, guests were invited to participate in a brief social interval before joining members of the Seventh District Medical Society for a barbecue later at the Marietta Country Club. A variety of sandwiches, cheese straws, and small cakes were served along with Coca-Colas, iced in a large crystal bowl attractively decorated with ivy leaves and purple asters.

FULTON: Mrs. Chas. H. Daniel, president. Fulton reports a meeting October 7 at the Academy of Medicine. The program was a panel discussion on "Medicine as I Saw It Abroad," by Dr. Chas. B. Upshaw, Mrs. E. M. Dunstan and Mrs. Bruce Schaefer. Mrs. Shelley Davis served as moderator. Dr. Upshaw reported interviews in England; Mrs. Schaefer, Austria; Mrs. Dunstan, Brazil. Luncheon was served following the meeting.

A delightful morning coffee, one of a series of three scheduled for Monday mornings of Oct. 17, 24 and 31, was held at the Academy, Monday, Oct. 17. Mr. Ed Bridges, public relations director for the Medical Association of Georgia, spoke to a large and enthusiastic group of Auxiliary members on the needs in Georgia to combat socialized medicine. During the informal discussion it was stressed that a more decisive stand should be taken on legislation by the medical societies. That the urgency of the question and the need for us (doctors and their wives) is to know what bills we want, what bills may be introduced and to have our answers ready before the January 1950 State Legislature meets. We should remember that our work to prevent socialized medicine must be fought first in our own State. We hope each auxiliary member will take the time to attend the coffees and learn all she can on the subject which we propose to fight. "It's Your Crusade Too!"

* * *

WARE: Mrs. William Stoner, president. Ware County Auxiliary met in September and Mrs. Stoner and Mrs. Leo Smith reported on the school for auxiliary officers which was held in Atlanta, and Mrs. Stoner outlined the aims of the Auxiliary for the new year, calling for the support of each member. Refreshments were served by hostesses, Mrs. L. H. Oden and Mrs. J. E. Penland.

The October meeting was held at the Woman's Club with Mrs. Wm. Stoner, presiding. The speaker, Mr. Merrill Johnson, representative of the hospital planning board, discussed the need of a larger hospital for Ware County, giving a clear picture of the financial side and how it might be obtained. He urged the support of the bond issue election for the 120 bed hospital.

Miss Elizabeth Griffin, nutritional consultant with the State Board of Health in Waycross, gave a talk on "Child Health Services in Georgia."

Mrs. Loomis Pomeroy and Mrs. Ansley Seaman served as hostesses.

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RICHMOND: Mrs. Nathan DeVaughn, president. The Auxiliary held its first meeting Tuesday, Sept. 20. Wives of the doctors at Oliver General and Lenwood hospitals were guests.

Devotional service was given by Mrs. R. C. McGahee.

Dr. Stephen W. Brown, chairman of the Advisory Committee, spoke to the members of the need for their continued efforts against socialized medicine. He stated the Advisory Committee approved their plans, which include parental guidance, cerebral palsy education and cancer education.

Mrs. Thomas Clary urged members to subscribe to *Hygeia* and keep it in the hands of the lay public.

Wives of doctors of Oliver General and Lenwood hospitals were invited to become members. Invitation to attend the meetings was extended wives of the University hospital resident staff and medical students.

Mrs. Marvin Estes, legislative chairman, was asked to conduct a study on socialized medicine.

Mrs. Robert Major, overall project chairman, announced Mrs. William Boyd as parental guidance chairman, Mrs. Perry Volpitto, cerebral palsy education chairman, and Mrs. Gilbert Klemann cancer education chairman. It was planned to enlist other organizations to help put on these projects.

Members were asked to help with the Diabetic Detection drive.

Members voted to handle the publicity for the Diabetic Detection drive in October under the chairmanship of Dr. J. D. Gray.

Luncheon was served following the meeting.

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ATTENTION: Please let us have news from your Auxiliary each month, not later than the 10th. It would be interesting to know the attendance each month. We hope to hear from more counties next month.

FAYE HOLLIS CLIFTON (Mrs. Ben Hill)
Chairman Editorial Board.

CERTAIN "COLD" WAVE PRODUCTS, COSMETICS ARE GRANTED A.M.A.

SEAL OF ACCEPTANCE

Certain "cold" wave products and cosmetics of two companies have been accepted as conforming to the rules of the Committee on Cosmetics of the American Medical Association, according to an announcement in the Sept. 10 *Journal of the American Medical Association*.

This is the first "acceptance" reported since the A.M.A. recently made it known that its Seal of Acceptance would be issued for cosmetic preparations meeting scientific standards. Other products are under test. The announcement was made by Dr. Austin Smith, Chicago, secretary of the committee and also secretary of the Council on Pharmacy and Chemistry of the A.M.A.

The Seal of Acceptance was issued for Rayve Creme Waving Lotion and Rayve Neutralizer, two "cold" waving ingredients in Rayve Home Permanent, a product of the Pepsodent Division, Lever Brothers Company, aid for hypo-allergenic products of Marcelle Cosmetics, Inc.

DRUGS CUT DEATH RATE OF RARE MUSCLE DISEASE

Modern methods of treatment have reduced the mortality rate of myasthenia gravis to about 10 per cent, according to two doctors from the University of Texas School of Medicine, Galveston.

In this rare disease, the cause of which baffles doctors, the victim's muscles progressively become weaker. The muscles most frequently affected are those concerned with movements near the eyes, with resulting squinting and "seeing double." Generalized muscular weakness also occurs.

Untreated, the disease runs a fatal course in 50 to 75 per cent of cases in a few years, Drs. Charles T. Stone and J. Alfred Rider write in the Sept. 10 *Journal of the American Medical Association*.

Drugs, principally neostigmine and tetraethylpyrophosphate, give complete relief in some cases and have greatly reduced the mortality rate of the disease, which is now probably about 10 per cent, they say.

NEWS ITEMS

Dr. C. C. Aven, Atlanta physician, president of the Southern Tuberculosis Conference, recently spoke at the dinner session of the group's annual meeting held in Memphis, Tenn. Dr. Aven said that the question "Is tuberculosis under control?" can be answered with a "flat no." "TB is still public health problem number one because it is spread by a germ. This germ is no respecter of persons," he said.

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Dr. J. H. Baxter, well known and highly esteemed physician of Ashburn and Turner County for around 40 years, has closed his office temporarily, because of illness. He is at Battey State Hospital, Rome, for treatment.

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Dr. Paul Beeson, Atlanta, professor of medicine, Emory University School of Medicine, recently addressed the professional staff conference of Oliver General Hospital, Augusta, Col. Horace S. Villars, M. C., commanding officer of Oliver General hospital announced. Dr. Beeson's subject was "Chemotherapy in Infections." Col. Villars invited all physicians and surgeons of Augusta and the surrounding territory to attend.

* * *

Dr. A. G. Bell, Wrightsville physician, has moved to Miami, Fla., where he will do general practice, a change of location being necessary because of his health. Dr. J. Harold Harrison, a native of Johnson County, will take over Dr. Bell's practice and occupy his office in Wrightsville. Dr. Harrison is a graduate of the University of Georgia, Augusta, and since his graduation has done intern work at the Medical College of Virginia Hospital, Richmond. Dr. Harrison's decision to return to his home county will make possible the continuation of the services of two physicians in Wrightsville since Dr. J. G. Brantley is continuing his practice as usual.

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Dr. William H. Bennett, Atlanta, announces the opening of offices at suite 1203 Medical Arts Building, Atlanta, for the practice of urology.

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The Bibb County Medical Society held its meeting at the S & S Cafeteria, Macon, October 4. Scientific program: "Therapeutic and Diagnostic Sympathetic Block Therapy," Dr. Perry P. Volpitto, Augusta. Dr. A. M. Phillips, secretary.

Dr. Edmund A. Brannen, Macon physician, has petitioned city council for a zoning clearance of the two-story building at 877 Hemlock Street, Macon, so that it may be converted into offices for the practice of medicine and obstetrics.

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Dr. A. L. Chapman, chief of the division of chronic diseases, of the U. S. Public Health Service, spoke at the opening session of venereal disease control seminar of the federal health service which opened a two-day conference held in Savannah, September 28-29. Dr. Chapman was high in his praise of VD-TB work, but thinks it doesn't go far enough. He believes that money and time could be saved by combining multiple disease surveys into one. The plan is already being tried by the federal service, he revealed and so far has proved successful. Under the suggested plan, the survey would consist of the following: 1. X-ray for TB, enlarged heart, cancer. 2. Height, weight tests for overweight persons apt to develop diabetes or bad heart conditions because of excess weight. 3. Urinalysis for diabetes. 4. Blood tests for syphilis and diabetes. 5. Eye tests. 6. Blood pressure tests. 7. Hearing tests. In tests made on a limited scale on California workers it was found time required is only about thirty minutes per person and no extensive equipment is needed. Out of every thousand cases examined, Dr. Chapman said, the following may be expected to be found: Syphilis, 48; diabetes, 22; glaucoma, 20; tuberculosis, 18; overweight (grossly), 200; bad eyesight, 226; impaired hearing, 250; high blood pressure, 38; and heart disease 39.

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Dr. Ralph O. Bowden, Dr. Oscar H. Lott and Dr. Myer M. Schneider, Savannah physicians, were made fellows in the American College of Surgeons and formally were presented the honorary degrees in Chicago, October 21.

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Dr. Enoch Callaway, LaGrange, president of the Medical Association of Georgia, recently addressed the Northwest Georgia Regional Health Conference held at Rome. Health councils in every community were urged by Dr. Callaway. Hospitals are not practical in communities which do not afford adequate staffs, he said. Mrs. Shelley Davis, Atlanta, opened the session and explained its purpose. Dr. Joseph S. Skobba, Atlanta psychiatrist, and Dr. Rufus Payne, Rome, Battiey State Hospital director, also were on the program.

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The Chatham-Savannah Health Department 1948 report submitted by Dr. Clair A. Henderson, Savannah, health commissioner, reflected gratifying progress in almost all phases of public health in Chatham county, to the city and county authorities in the form of an attractive mimeographed booklet entitled "To 150,000 Stockholders."

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The E. C. Davis Memorial Obstetric Lectureship was given by Dr. Nicholson J. Eastman, Baltimore, Md., professor and obstetrician-in-chief, Johns Hopkins Hospital, at the Academy of Medicine, Atlanta, October 7. Program: Dr. James H. Byram, presiding, "Dr. Edward Campbell Davis, the Man, the Physician, and the Soldier"; Dr. Edgar H. Greene; "Response, The Davis Family"; Dr. Shelley C. Davis; Introduction of Dr. Nicholson J. Eastman by Dr. James R. McCord; "The Physiology and Pathology of Uterine Contractions," Dr. Eastman. Members of the Georgia Chapter of the American Academy of General Practice were guests. Committee: Drs. James R. McCord, chairman, James H. Byram, secretary, R. A. Bartholomew, Walter W. Daniel, Shelley C. Davis, and George A. Williams.

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Dr. Jesse C. Dover, native of Rabun County and Clayton physician, who is the best known of any citizen in the county and knows more of the "goings on" in the county, recently completed fifty years of medical practice, according to the Clayton Tribune. Beginning his career in his own county upon graduation from Emory University School of Medicine, Atlanta, in 1899, Dr.

Dover has seen the progress of the county from the real horse and buggy days, to the present, and has had many enjoyable occasions, and many sad experiences during that period of service. Dr. Dover has been presented with the Certificate of Distinction and gold lapel button by the Medical Association of Georgia since the annual session held in Savannah. Also the physicians listed below who were reported to the secretary-treasurer after the Savannah session: Drs. Bethel B. Chandler, Gainesville; Comer O. Coplan, White Plains; Orman Daniel, Jefferson; William F. Friddell, Boston; Henry Jones, Coolidge; Campbell C. King, White Plains; Buna Columbus Powell, Villa Rica; C. A. Roberts, Leary; and Thompson M. Spruell, Temple.

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Dr. J. K. Fancher, Atlanta, announces the association of Dr. David B. Dennison, Atlanta, in the practice of endocrinology at 478 Peachtree Street, N. E., Atlanta.

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The Georgia Chapter of American Academy of General Practice met at the Academy of Medicine, Atlanta, October 7. The one-day meeting opened with a business session at which the group stressing their belief in the need for general practitioners has authorized a scholarship for students agreeing to enter that field for a minimum of two years. The scholarship of \$500 each medical year was voted at the annual meeting of general practitioners. Details of awarding the one scholarship each year will be announced next spring. The plan will become effective with the fall term of 1950. Dr. Steve P. Kenyon, Dawson, retiring president of the organization, said, "It is conceded that there is a need for medical service in rural areas. In line with this, our scholarship has been established." Speakers were Dr. Hugh Wood, Atlanta, dean of Emory University School of Medicine; Dr. J. C. Patterson, Cuthbert; Dr. G. Lombard Kelly, Augusta, dean of University of Georgia School of Medicine; and Dr. J. P. Sanders, Shreveport, La., vice-president of the American Academy of General Practice. Officers elected are Dr. J. B. Kay, Byron, president, to succeed Dr. Steve P. Kenyon; Dr. W. G. Elliott, Cuthbert, vice-president; Dr. A. R. Bush, Hawkinsville, secretary-treasurer. Directors elected for two years were Dr. W. W. Daniel, Atlanta, and Dr. Steve P. Kenyon, Dawson. One-year directors were Dr. Harry Cheves, Union Point and Dr. George Alexander, Forsyth. Dr. Fred Simonton, Chickamauga, was voted by the group as a delegate to the national convention for two years, and Dr. Harry Cheves was elected as the one-year delegate.

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The Fulton County Medical Society held its dinner meeting at the Academy of Medicine, Atlanta, October 6. Scientific program: Dr. James H. Byram, moderator; "A New Method of Fetal Cephalometry in Breech Presentation", Dr. Eugene Griffin; "Salvage Possibilities in Threatened Abortion", Dr. E. D. Colvin; "Interpretation of Blood Pressure Behavior During Pregnancy and Puerperium", Dr. R. A. Bartholomew.

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The Georgia Baptist Hospital Medical Staff held its monthly meeting in the dining room of the hospital, Atlanta, October 18. "Air Embolism Following Pneumoperitoneum Refills for Pulmonary Tuberculosis" was the subject discussed. Dr. A. Worthy Hobby, Atlanta, led the discussion. Dr. J. C. Blalock, Atlanta, secretary.

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The Georgia Medical Society held its regular meeting at 612 Drayton Street, Savannah, October 11. Scientific paper "Diseases Involving the Bone Marrow", with motion pictures by Dr. Lee Howard, Jr. Dr. Sam Youngblood, Jr., secretary.

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The Georgia Department of Public Health in cooperation with the health departments of Bryan, Evans, Effingham, Bulloch and Liberty counties launched VD-TB surveys in the above named areas during September, October and November. Bryan County was the first. Its one week health drive was held the week of September 14, with testing stations in Pembroke for both white and colored. A permanent station will be at Richmond Hill

during the survey. A mobile unit roved the county to the less populated areas. Dr. W. D. Lundquist, commissioner of health for all five counties, said the aim of the program was to give everyone in his counties over 12 years of age a free blood test and x-ray. Bryan is the 31st county in Georgia to receive this service. The Georgia Department of Public Health credits these surveys with the tremendous strides that have been made in the past four years in the fight against syphilis and tuberculosis.

* * *

The Fifth District Medical Society, Georgia Chapter of American College of Surgeons, and Georgia Urological Association held their joint meeting at the Academy of Medicine and Biltmore Hotel, Atlanta, November 11. Guest speakers were Dr. George C. Cahill, New York City; Dr. Frank H. Lahey, Boston; Dr. Hayes E. Martin, New York City, and Dr. Frederick A. Coller, Ann Arbor, Mich.

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Dr. Milton H. Freedman, Atlanta, announces the opening of his office at 663 West Peachtree Street, N. E., Atlanta, for the practice of internal medicine and hematology.

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The Fulton County Medical Society held its semi-monthly dinner meeting at the Academy of Medicine, Atlanta, October 20. Scientific program. Dr. Edgar M. Dunstan, moderator; "They Also Serve. The Physician's Responsibility in the Event of a Major Disaster", motion picture produced by the American Medical Association; "Medical Plans for Civil Defense and Disaster", Dr. William L. Wilson; "Present Status of Biological, Chemical and Psychological Warfare", Dr. Joseph S. Skobba; Question Period and Discussion led by Dr. Elbert DeCoursey, Washington, D. C., and Dr. Walter M. Bartlett.

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Dr. Robert W. Graves, Rome, has accepted an appointment as full professor of neurology at Albany Medical College and Hospital, Albany, New York, the latter a 700 bed institution. The Albany Medical College and Hospital is the second oldest in the United States, the first being in Philadelphia.

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Dr. L. Margaret Green, Atlanta, announces the opening of her office at 27 Eighth Street, N. E., Atlanta. Practice limited to pediatrics.

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The Georgia Division of the American Cancer Society held its annual membership meeting at the Biltmore Hotel, Atlanta, October 24-25. Public education, progress in cancer research, and physicians' "refresher" courses were discussed. "Progress in Cancer Control" was discussed by Miss Charlotte Payne, National Director of Lay Service. Other speakers were Robert Purves, Director of the nation-wide organization; Mrs. J. M. Cheatham, Griffin, State Commander of the Field Army; Dr. J. Elliott Scarborough, Atlanta, chairman of the State Executive Committee, and Dr. Enoch Callaway, LaGrange, president of the Medical Association of Georgia and of the Georgia Division of the American Cancer Society.

* * *

The Georgia State Board of Medical Examiners recently announced the names of 23 physicians it licensed in Atlanta, October 13. Members of the State Board of Medical Examiners are Drs. J. W. Palmer, Ailey, president; Edgar H. Greene, Atlanta, president-elect; Steve P. Kenyon, Dawson; Grady N. Coker, Canton; R. H. McDonald, Newnan; Phil E. Roberson, Albany; Fred J. Coleman, Dublin; Alexander B. Russell, Winder; Rufus A. Askew, Atlanta, and R. F. Wheat, Bainbridge.

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Dr. Tom Hall, II, grandson of Dr. T. M. Hall, Milledgeville, recently accepted a position of senior assistant physician at Milledgeville State Hospital, Milledgeville. Dr. Hall completed a tour with the U. S. Army at Chatham Field in Savannah.

Dr. Hubert U. King, Nicholls, was recently praised for the service he rendered in the tuberculosis and venereal disease survey of Bacon County. The Venereal Disease Control Officer of the Regional Office in Waycross, said that Dr. King showed great interest in the work of the Health Department in its effort to eradicate tuberculosis and syphilis from Bacon County.

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Dr. Ruskin King, Savannah pediatrician, and president of the Chatham-Savannah Health Council, was again appointed chairman of the "Stamp Out VD Drive." Dr. King said that "in the fiscal year of 1943 and up through the first half of fiscal 1949, the U. S. Public Health Service reported well over a million newly diagnosed victims of VD. Many times more went undetected and unreported." Dr. King is heading a campaign to raise funds for the American Social Hygiene Association, a leader for the past 37 years in family life education and sole national voluntary agency in the field of venereal disease control.

* * *

Dr. Leon Lapides, Columbus physician, recently spoke at the luncheon meeting of the Woman's Auxiliary of the Muscogee County Medical Society. Dr. Lapides discussed "The Advantages of the Blue Cross Plan" and held an open discussion on the subject.

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Dr. A. H. Letton, Atlanta, recently visited the National Naval Medical Center, Bethesda, Md., taking a course in "The Aspects of Special Weapons in Radioactive Isotopes."

* * *

Dr. R. Bruce Logue, Atlanta, past-president of the Georgia Heart Association, recently addressed the first Southeastern Regional Conference of State Heart Associations which met at the Biltmore Hotel, Atlanta. Dr. Logue spoke on "Recent Advances in Cardiovascular Diseases."

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Dr. Louis K. Levy, Atlanta, announces the removal of his offices to 663 West Peachtree Street, N. E., Atlanta.

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Dr. Cleve C. Odom, Augusta, veteran psychiatrist and retired Army colonel, resigned as manager of the Veterans Administration's Lenwood Hospital, to become superintendent of the South Carolina State Hospital, Columbia, S. C. Dr. Leo R. Tighe, Murfreesboro, Tenn., chief of professional services at the Veterans Administration Hospital, succeeds Dr. Odom. Dr. William V. Walsh, North Little Rock, Ark., recently assumed the duties at Veterans Administration Hospital, Augusta, as chief of professional services. He succeeds Dr. Vincent L. Frankfurth, who was transferred to the VA Hospital, Downey, Ill.

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Dr. William W. Osborne, Savannah obstetrician and gynecologist, has been assigned to the medical staff of Chatham Air Force Base, Savannah. Dr. Osborne, who is a veteran of World War II, will give treatment to the dependents of air force personnel free of charge at the base dispensary on Tuesdays and Thursdays.

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Dr. Ben S. Read, Atlanta, announces the limitation of his practice to gynecology at 110 Medical Arts Building, Atlanta.

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The Richmond County Medical Society held its regular meeting at the Old Medical College Building, Augusta, September 15. Scientific program; "Poliomyelitis" was the subject of the guest speaker, Dr. Hart E. Van Riper, New York City, medical director of the National Foundation for Infantile Paralysis, Inc. Dr. Van Riper visited the polio unit at University Hospital while in Augusta.

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Dr. Charles L. Ridley, Jr., and Dr. J. Benham Stewart, both of Macon, were recently elected to the American College of Surgeons. The college before accepting memberships, require excellent qualifications as well as high

team on the part of their fellow surgeons. Dr. Ridley graduated from University of Georgia School of Medicine, Augusta, in 1942, and served three and a half years in the U. S. Army during World War II, and was discharged with the rank of major. Dr. Stewart graduated from Emory University School of Medicine, Atlanta, in 1933, and spent three years as chief on surgical service during World War II. He was discharged with the rank of captain.

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The Second District Medical Society held its dinner meeting at Elks' Home, Tifton, October 13. Scientific program: "The Bleeding Uterus," Dr. Richard Torpin, Augusta; "Indications for Thyroid Surgery," Dr. Alfred E. James, Albany "Mind, Matter and the Doctor," Dr. H. B. Jenkins, Donalsonville; "The Torpin Pelvimeter, a Valuable Aid in Obstetrics," Dr. Howard Cheshire, Thomasville. Officers are Dr. J. C. Brim, Pelham, president; Dr. L. A. Smith, Quitman, vice-president; Dr. Frank A. Little, Thomasville, secretary, and Dr. C. K. Wall, Thomasville, councilor.

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The Seventh District Medical Society held its dinner meeting at Marietta Country Club, Marietta, October 5. Members of the Cobb County Medical Society were hosts to the society. Program: Invocation by the Rev. R. Parks Segars, Marietta; Address of Welcome by Dr. Alfred Colquitt, Jr., Marietta; Reading of minutes, report of committees and report of Dr. Lloyd Wood, Dalton, councilor. Scientific program: "State Rehabilitation as Concerns The Doctors," Mr. Clay Dendy, Atlanta, director State Rehabilitation Office; "Diarrhea in Children," Dr. Robert Black, Rome; discussion by Dr. Irman Smith, Rome, and Dr. R. W. Fowler, Marietta; "Newer Considerations in the Treatment of Thyroid Diseases," Dr. Henry Poer, Atlanta; discussion by Dr. M. M. Hagood, Marietta, and Dr. William Harbin, Rome; "A Discussion of Chest Pain," Dr. Carter Smith, Atlanta; discussion by Dr. Robert F. Norton, Rome, and Dr. Truman Whitfield, Dalton. Officers are Dr. Sam M. Howell, Cartersville, president; Dr. Lee H. Battle, Jr., Rome, president-elect; Dr. S. B. Kitchens, LaFayette, secretary-treasurer, and Dr. Lloyd Wood, Dalton, councilor.

The Woman's Auxiliary to the Seventh District Medical Society held their meeting at the First Methodist Church, Marietta, October 5. Program: Welcome by Mrs. W. H. Benson, Marietta; Response by Mrs. J. A. Billings, Calhoun; Reading of minutes, reports from County Auxiliaries and new business. "Fight With Knowledge," Mrs. J. Harry Rogers, Atlanta, president, Woman's Auxiliary to the Medical Association of Georgia; "Rehabilitation," Mr. W. C. Dendy, Atlanta. Officers are Mrs. William U. Hyden, Trion, district manager, and Mrs. J. J. Allen, Trion, secretary.

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Dr. Byron Harold Steele, Fairmount, is directing the Health Center of Fairmount, Inc., a non-profit corporation, recently completed ten room clinic. The clinic cost the people about \$15,000 and has a value of at least twice that amount. is now in operation and serving the community that worked so faithfully to build it. Realizing the need for better health facilities the people of Fairmount and surrounding community, headed by the civic organizations put their shoulders to the wheel and raised the many thousands of dollars necessary to construct the building. Every dollar was donated without the assistance of county or state. Dr. Steele graduated from the College of Medical Evangelists, Loma Linda, Los Angeles, Calif., in 1948. Coming into a strange community he took hold and did a lot of work arranging the inside of the clinic for the accommodation of his patients. He installed the latest of equipment, including an x-ray machine. Medical facilities are within reach of every citizen at a nominal fee and without the expense of traveling a long distance. The officials of the Health Center of Fairmount, Inc., are grateful to the people for their assistance and cooperation.

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Dr. Perry P. Volpitto, Augusta, head of the department

of anesthesiology at the University of Georgia School of Medicine, was one of the guest speakers at the 79th Annual Meeting of the Colorado State Medical Society held at the Shirley-Savoy Hotel, Denver, Colo., Sept. 20-23. Dr. Volpitto discussed "Anesthesia in Childbirth."

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The University of Georgia School of Medicine, Augusta, was represented by four faculty members who were featured on the program of the Piedmont Post-graduate Clinical Association in Anderson, S. C. Dr. J. H. Sherman presented a paper on "Burns and Shock"; Dr. W. A. Risteen, "Management of Head Injuries"; Dr. J. Robert Rinker, "Urinary Complications of Pelvic Fracture"; and Dr. Peter B. Wright, "Fractures". Dr. Wright also served as moderator on a panel discussion on "Trauma".

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Dr. Edward O. White, formerly of Charleston, S. C., announces the opening of his office in the Atkinson Building, Madison, for the practice of medicine and surgery. Dr. White, a native of South Carolina, graduated from the Medical College of the State of South Carolina, Charleston, S. C., in 1946. He served his internship at Baltimore City Hospital, which is a teaching hospital of Johns Hopkins University School of Medicine, Baltimore, Md. He served two years in the Army Medical Corps during World War II, with the rank of captain.

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Dr. Walter E. Winter, Augusta, has been appointed acting superintendent of the Georgia Training School for Mental Defectives at Gracewood, according to information from the State Welfare Department in Atlanta. He succeeds Dr. Edward W. Schwall who died September 27, 1949. Dr. Winter graduated from the University of Georgia School of Medicine, Augusta, in 1947. Following his internship at Orange Memorial Hospital, Orlando, Fla., he opened his office in Madison, Fla. He returned to Augusta and was in private practice until he was named assistant to Dr. Schwall several weeks ago.

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The Upson County Medical Society recently held its dinner meeting at Thomaston. Dr. Frank K. Boland, Atlanta surgeon, was guest speaker. Dr. Boland's subject was "Surgical Diagnosis" Illustrated With Lantern Slides.

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Dr. Herman Delaney, a native of Cartersville, announces his association with the Matthews Hospital, Dallas, in the practice of medicine and surgery. Dr. Delaney graduated from the University of Georgia School of Medicine, in 1946. He served his internship at University Hospital, Augusta, and Siani Hospital, Baltimore, Md. While in the U. S. Army Medical Corps he spent two years at Oliver General Hospital, Augusta, and was released last August.

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The Georgia Pediatric Society held its 17th Annual Scientific Meeting at the Academy of Medicine, Atlanta, October 13. Scientific program: "The Value of Physiological Methods in Diagnosis of Congenital Heart Disease", Dr. Richard J. Bing, Baltimore, Md., Associate Professor of Surgery and Medicine, Johns Hopkins University and Johns Hopkins Hospital; "Management of Obesity in Children", Dr. Donovan J. McCune, New York City, Professor of Pediatrics, College of Physicians and Surgeons, Columbia University; "Cyanotic Congenital Heart Disease", Dr. Stanley Gibson, Chicago, Emeritus Professor of Pediatrics, Northwestern University Medical School. Evening Session: Address of Welcome, Dr. Stephen Brown, Atlanta, President of the Fulton County Medical Society; Response to Address of Welcome, Dr. Elizabeth I. Fletcher, Statesboro; "Coronary Blood Flow and Cardiac Metabolism in Man, with Special Reference to the Action of Digitalis", Dr. Richard J. Bing, Baltimore; "Recent Observations of Nephrosis", Dr. Donovan J. McCune, New York City; "Cyanotic Congenital Heart Disease", Dr. Stanley Gibson, Chicago. Officers are Dr. Howard J. Morrison, Savannah, presi-

dent; Dr. Don F. Cathcart, Atlanta, president-elect; Dr. W. G. Crawley, Marietta, vice-president; Dr. J. Harry Lange, Atlanta, secretary-treasurer. Scientific Committee, Dr. Joseph Yampol-ky, Atlanta, chairman; Dr. James P. Hanner, Atlanta, Dr. Philip Mulherin, Augusta; Dr. Edwin R. Watson, Macon. Arrangements Committee, Drs. Stephen Redd, chairman, Lee Bivings, and Isadore Cohen, all of Atlanta.

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Dr. James E. Paullin, Atlanta, former president of the American Medical Association, recently addressed the Atlanta Federation of Women's Clubs at its fall meeting held in Atlanta. Dr. Paullin discussed the "Socialization of Medicine". Dr. Paullin warned that aside from the big, fumbling bureaucracy sure to be established at a high cost to citizens in the event of "socialization", he considered the President's Health Program a keystone to the socialization of other professions and business "to the end that the government will eventually dominate the affairs of every citizen."

SOUTHEASTERN ALLERGY ASSOCIATION BULLETIN

The fifth annual meeting of the S.A.A. will be held at the Columbia Hotel, Columbia, S. C., on Saturday and Sunday, Feb. 11 and 12, 1950. Please note that the month has been changed because of changes made in the meeting dates of the Academy of Allergy and the College of Allergists. This puts our meeting about midway between the two.

Our guest speakers will be Dr. Jonathan Forman, president of the American College of Allergists and Dr. Theodore Squire, president-elect of the American Academy of Allergy.

In view of the popularity of panel discussion, there will again be two, one on "Pediatric Allergy" with Dr. Lewis Hoppe of Atlanta as coordinator, and the other on "Office Procedure" with Dr. Warrick Thomas of Richmond as coordinator.

Members who are desirous of presenting papers at this meeting are urged to contact the secretary at an early date. Each paper will be allowed 20 minutes for presentation and 10 minutes for discussion.

There will be an informal luncheon on Saturday noon. The banquet will be held Saturday night, followed by a dance. Both will be at the Columbia Hotel. Be certain to bring your wife.

Make your hotel reservations directly with the Columbia Hotel, Columbia, S. C. Do it now, before you forget.

The Columbia Medical Society holds its regular meeting at the Columbia Hotel on Monday night, Feb. 13, 1950. You are cordially invited to stay over for cocktails and dinner at 7 p. m., followed by the scientific meeting. Dr. Harry Rogers of Philadelphia is to be the guest speaker. All of us know Harry and it is hoped many can arrange to stay over Monday.

In order that plans can be completed, we must have some idea of the number who plan to attend, so please send your name to the secretary, Dr. Katharine Baylis MacInnis, 1515 Bull St., Columbia, S. C.

THIRD ANNUAL CLINICAL SESSION OF THE A.M.A.

Advance registrations and hotel reservations are now being received for the 1949 Clinical Session—the third annual mid-year meeting of the A.M.A.—to be held in Washington, December 6-9.

Attention to those details at this time will assure physicians a wide choice of hotel accommodations and will eliminate all delay in registering at the National Guard Armory upon arrival in Washington. Requests for reservations should be made before November 9 and sent to the Chairman of the Subcommittee on Hotels, American Medical Association, Hotel Reservation Bureau, Star Building, Washington 4, D. C.

The Clinical Session will provide a full-scale scientific program specifically designed for the general practitioner. Outstanding physicians will discuss such subjects as diabetes, pediatrics, laboratory diagnosis, physi-

cal medicine and rehabilitation, arthritis, dermatology, x-ray diagnosis, cancer, poliomyelitis and other topics.

Typical of the complete coverage which will be given medicine in the fields in which the general practitioner is interested is the program covering pediatrics. In sessions beginning on the afternoon of December 6 and continuing through the morning of December 9, approximately 35 papers will be presented by leading specialists from all parts of the country.

In another section, about the same number of papers will deal with the problems of delivery alone. More than 20 physicians will present their findings and views on diabetes.

One of the features of the section dealing with arthritis will be a report on the present status of cortisone and ACTH, two compounds which have opened new approaches to the treatment of rheumatoid arthritis.

Coordinated with this outstanding scientific program will be approximately 100 scientific exhibits which will present original work on the subjects discussed.

The newest offerings of 125 manufacturing firms will comprise the Technical Exposition. Here will be found the latest developments in scientific medical research, drugs and equipment.

The clinical sessions and the exhibits will be held in the National Guard Armory, Capitol Avenue and East 19th Street. The exhibit hall will be open throughout the meeting, 8:30 a.m. to 6 p.m., giving ample opportunity to study the latest additions to modern medical practice.

Television surgical and clinical procedures, similar to those shown in color at the A.M.A. annual session in Atlantic City last June, will be presented at the Washington meeting. The demonstrations will originate in the Johns Hopkins Hospital and will be shown on screens in the armory. The television schedule will be spread over four days.

The House of Delegates will meet at the Hotel Statler during this session. One of the first orders of business will be the annual selection of the general practitioner who has made an exceptional service contribution to his community. A gold medal will go with the honor.

An entertainment program for attending doctors and their wives is being developed. The highlight of this will be on Wednesday evening, December 7, when Philip Morris will originate its "This is Your Life" broadcast from the Hotel Statler. The radio program will be followed by a stage show in which outstanding stars will participate.

For the convenience of doctors making advance registrations and reservations, The Journal of the American Medical Association is publishing in its advertising section every week, convenient hotel reservation and advance registration blanks. Listed also are the leading hotels and their rates.

LIFE SPAN

Average length of life in the United States is now about 67 years, or nearly double what it was at the time of the nation's founding, and 18 years more than at the beginning of this century. Only the Scandinavian countries, Australia, and New Zealand have as favorable an experience.

These are samplings from the great wealth of facts on longevity and its relations with sex, age, marital status, body build, occupation, family history, and medical record in *Length of Life*, by Dr. Louis I. Dublin, chief of statisticians of the Metropolitan Life Insurance Company. Dr. Alfred J. Lotka, and Mortimer Spiegelman, the Metropolitan's assistant statistician.

In the book, just published by The Ronald Press Company, New York, the authors trace and interpret the improvement in health and longevity from the earliest times to the present, with emphasis on the social and scientific influences which have brought about this progress.

The increase in our longevity, the authors indicate, was made possible not only by the advances in the medical and sanitary sciences but also by the rapid rise in

our standard of living. Though not so evident, improved working conditions, better and more varied food, and plenty of fresh air and sunlight around our homes have given extra years of life to our people.

The authors deal with the problems of forecasting expectation of life. They foresee a further increase of five years in the average length of life in America by 1975, but point out that the chances of surviving beyond the century mark are not expected to be much greater. One hundred years appears to be about the limit of the natural human life span.

The influence of heredity upon longevity is studied. One case is mentioned of a person whose six parents and grandparents lived to a total of 599 years, and who was himself more than 90. In their discussion of the inheritance of longevity the authors conclude that, although a tendency toward long life is inherited, the inheritance factor is not as important as advances in medicine and in standards of living.

Such factors as the relations of child mortality to age of parents, order of birth, pre and neonatal influences, and the Rh factor are scrutinized. In the discussion of body build a statistical and medical backing is supplied for the slimming diets so many persons try out periodically. Being greatly overweight, it is shown, seriously affects the expectation of life. Being markedly underweight is also a handicap, but not as bad.

After discussing some of the advances which have brought about the present long average lifetime in the United States, the authors turn their attention to the economic and social aspects of increasing longevity. With the population growing older, the pattern of family life is changing. As health measures are improved, more and more persons enter the years of old age in better physical condition. With continuing gains in medical and social science, the number of normally active years of life will be increased. Instead, therefore, of becoming a burden on the younger working population for support and medical care, the old may well extend their productivity way beyond the present retirement age of 65.

LENGTH OF LIFE—A Study of the Life Table. By Dr. Louis I. Dublin, Second Vice-President and Statistician; Dr. Alfred J. Lotka, Assistant Statistician, Retired; and Mortimer Spiegelman, Assistant Statistician, Metropolitan Life Insurance Company. 379 pages. 126 charts and tables. \$7.00. Published by The Ronald Press Company, New York 10, N. Y.

V-A RESEARCH

Veterans Administration has spent approximately \$1,000,000 and established research units in 12 hospitals in developing its radioisotope program to date, the V-A's Department of Medicine and Surgery revealed recently.

The extent of the program was contained in a progress report by Dr. George Lyon, chief of the Radioisotope Section of V-A's medical service, to the members of the Central Advisory Committee on Radioisotopes in attendance at their third annual meeting in V-A Central Office.

Dr. Lyon told the committee that four new units will be established during the current fiscal year and that the Administrator of Veterans Affairs had approved plans for radioisotope units in a number of hospitals now under construction.

Dr. Lyon also said he anticipated that increasing funds would be available for expanding the program during the fiscal year.

The V-A radioisotope chief expressed pleasure at the number of well qualified individuals who had been employed in the program, especially, he said, in view of the scarcity of such personnel. He also disclosed that V-A had received close cooperation from the Division of Medicine and Biology of the Atomic Energy Commission and the Isotopes Branch at Oak Ridge, Tennessee.

The committee reviewed the progress of the diagnostic, therapeutic and research program carried out by the Radioisotope Section. The members also considered future activities of the section and outlined methods for solving many problems connected with the use of radio-

isotopes.

Other matters discussed by the committee included individual reports of the research units, the question of releasing information to the public, relationship to the units to national security, relationship of the units to the V-A education and training program and the question of Civil Service appointments.

The committee members who were greeted by Dr. Arden Freer, Acting Chief Medical Director, and Dr. E. H. Cushing, Assistant Medical Director for Research and Education, at the meeting were:

Dr. Shields Warren, Chief, Division of Biology and Medicine of the Atomic Energy Commission.

Dr. Stafford Warren, Dean of the School of Medicine, University of California at Los Angeles.

Dr. Hymer Friedell, Professor of Radiology, Western Reserve University, School of Medicine, Cleveland, Ohio.

Dr. Hugh Morgan, Professor of Medicine, Vanderbilt University School of Medicine, Nashville, Tennessee.

Dr. Perrin H. Long, Professor of Preventive Medicine, Johns Hopkins University School of Medicine, Baltimore, Maryland.

afraid to venture into the world alone. They carefully avoid crowds and all social gatherings, as well as open spaces, such as streets and country roads where they might be entirely alone. They refuse to attend parties; go to restaurants; ride on trains, elevators, subways, airplanes, or ships; or go to beauty parlors or barber shops. They particularly dread towns, tunnels, and islands."

The doctor's task in treating these neurotic persons is to induce them to place themselves in situations that they fear, he points out.

Psychologic re-education along this line requires months of treatment and supervision by the doctor, but generally results in improvement which enables patients to work and live efficiently, the article shows.

Of 86 patients treated for phobias by Dr. Terhune, 58 were permanently relieved of their handicapping fears, 21 were sufficiently improved to be able to work and live efficiently, and only seven showed slight or no improvement.

MACON MEETING OF THE ASSOCIATION

April 18, 19, 20 and 21, 1950

The Medical Association of Georgia will hold its 100th Annual Session in the City Auditorium, Macon, April 18-21, 1950.

Already plans are under way for this important session of the Association. The Committee on Scientific Work is receiving daily requests for places on the scientific program. If you wish to have a proposed presentation considered by the committee, send now the request to Dr. Edgar D. Shanks, Secretary, 478 Peachtree St., N.E., Atlanta.

Requests for space for scientific exhibits should be sent Dr. Robert B. Greenblatt, Chairman, Committee on Scientific Exhibits, University of Georgia School of Medicine, Augusta. The request should include insofar as possible a careful estimate of the number of feet needed for your exhibit.

Hotel reservations for this session of the Association should be made now. If for any reason you experience trouble in securing a hotel reservation, please write the Bibb County Medical Society, Dr. A. M. Phillips, Secretary, Macon.

RESEARCHERS CONDEMN USE OF HORMONES AS BEAUTY TREATMENT

Treatment with hormones is not the answer to the problem of unwanted hair, a group of Duke University researchers found.

The researchers—Drs. J. Lamar Callaway, James T. Wortham, and E. C. Hamblen, and A. A. Salmon, B.S., of Durham, N. C.—report their findings in the current (October) issue of *Archives of Dermatology and Syphilology*, published by the American Medical Association.

Women who come to doctors seeking such a treatment should realize that unneeded hormones not only may fail to relieve the condition but also may bring about significant alterations in ovarian function, the article indicates.

The only recommendation the doctor can give at present to women with unwanted hair not caused by specific disease, such as a tumor, is to stop overemphasizing the condition or use bleaching or safe methods of hair removal, such as electrolysis, the researchers concluded.

PHOBIAS ARE INDICATION OF CHILDISH PERSONALITY

Persons who have phobias, such as unreasonable fears of open spaces, crowds, tunnels, and other conditions, have not grown up emotionally, says Dr. William B. Terhune of New Canaan, Conn.

"The phobic syndrome (complex of symptoms) is apparently one which arises in young adults when an apprehensive, dependent, emotionally immature person is trying to realize his ambitions and become an independent, successful member of society," he writes in the August issue of *Archives of Neurology and Psychiatry*, published by the American Medical Association.

"This neurosis occurs in infantile persons. It is a process of regression to childish dependence on omnipotent adults for protection.

"Patients who suffer from the phobic syndrome are

HAVE YOU PAID YOUR CURRENT MEDICAL DUES?

The American Medical Association, at its Washington, D. C., interim session in December, will credit the Medical Association of Georgia with 2345 members. This is the highest number of members the Medical Association ever has had. But there are a few physicians in Georgia who have not paid their 1949 dues. Check with your county secretary now and be sure your current dues are paid.

HOW CLEAN ARE YOU?

Cleanliness and good personal hygiene are within the reach of everyone. There is no substitute for the daily bath and the use of plenty of soap to rid the skin of dirt and odors, according to the Educational Committee of the Illinois State Medical Society in a *Health Talk*.

The skin harbors germs which thrive on dirt. In its normal process of reduplication, the skin gives off waste materials from its sweat glands. As billions of new cells are produced daily in the lower layers of the skin, billions in the superficial or top layer, called the cuticle, become detached in the form of a dry scale. This dead material must be removed to permit the effective functioning of the skin.

Just stepping into a tub of water is not enough. The skin should be rubbed vigorously with soap and particular attention paid to those parts of the body having folds of skin. Special attention should be paid to the feet and skin between the toes.

The daily bath should be a habit. Persons who perform strenuous work and whose sweat glands are overactive should take two baths a day. Nothing is so unpleasant as body odor.

Good personal hygiene includes frequent washing of the hands, particularly before and after meals, and the removal of dirt accumulations beneath the nails. The hair should be washed regularly and brushed daily to keep it free from dust and oil. Uncared for hair throws off a sort of rancid odor.

Clothing should be changed daily whenever possible, particularly clothing worn close to the skin. The fabrics hold odors and should be cleaned and washed frequently.

Good grooming does not mean fashionable clothes, expensive footgear and intricate hair styles. The well-scrubbed look is the basic first. Simple but clean clothes and attention to teeth, hair, skin and nails complete the picture.

A clean body presents a wholesome appearance. A clean home gives a similar effect. Cooking utensils, dishes and silverware should be spotlessly clean. A ravenous appetite will be dulled if the food service is not sanitary.

Good personal hygiene is largely a matter of training and should be instilled in the very young child. An early understanding and appreciation for the small details in cleanliness will foster the development of sound principles in hygiene in later years. Certainly it will obviate the growth into habits of carelessness and slovenliness.

Good hygiene should extend itself to the community. A person interested in keeping himself clean should attempt to keep his city clean. Discarding scraps of paper, fruit skins and other things clutter up a street, invite germs to spread disease and offer hazards for accidents.

Keep yourself, your home and your family clean. Strive for the well-scrubbed look by using plenty of soap and water. Remember that a clean body is the first step to a healthy body. You will not only look and feel better, but your companions and neighbors will like it too.

STUTTERING CAN BE OVERCOME

Speech is one of the most powerful instruments in every day living. Yet, many parents, because of lack of understanding are responsible for the development of speech defects in their children, the Educational Committee of the Illinois State Medical Society observes in *Health Talk*.

Stuttering, for example, is one of the most common speech defects, affecting one in every hundred persons in either of its two forms; the repetition of sounds and when the mouth gapes open without any sounds being emitted.

Children manifesting these symptoms should be carefully examined by a physician to rule out any physical malformation of the jaw, larynx, tongue, palate or nasal passages. Because the chief purpose of the larynx is to aid speech, it is commonly called the "voice box." It houses the vocal cords which, by stretching and shortening, open and close to form sounds of various pitches or tones. The entire process creates vibrations which are molded into specific sounds by the tongue, the teeth, the palate and the lips.

If these organs are physically correct, the examinations must include a search for nutritional disorders and last psychologic disturbances. These factors may be responsible for the child not using the speech apparatus properly so that he has difficulty with such letters as T or D, L or R.

Emotional confusion results from the impatience and reprimands of parents. When a child stutters the parent frequently hurries him to complete his sentence, supplies the word for this thought and most often delays the correction of the defect by ignoring it with the hope that he will outgrow it.

These factors are important ones to avoid in the training of a child. Every effort should be made to relax the child, put him at ease and treat him as though no defect existed. Observe a child in solitude, singing or talking to a doll or dog, and you will observe that there is no stuttering. It is only when the tot is thrust into a position where he is exposed to ridicule by his playmates or impatience by his parents that the stuttering rises to a struggle. The effort may be likened to a gasping for air.

Wise parents will encourage the child to talk. Making a game out of conversation will not only relax the youngster, which is most essential in the correction, but will instill in his childhood the great art of good speech. He should be placed under the guidance of experts in the problem who will help him overcome his handicap with special training.

It is the responsibility of every parent to equip their children with the best preparation possible for competition in later life. Earning power is higher for persons with good speech habits than those in whom defects and impediments exist.

Today, as never before, people are taught to overcome their handicaps. And meeting the challenge will yield a richer and fuller life. If your child has a speech defect, find out about it. Don't wait for him to outgrow it—maybe he won't. Consult your physician for advice and treatment. By helping your child to overcome the failing you will give to your home and society a normally adjusted individual.

IS YOUR CHILD READY FOR SCHOOL?

Preparing a child to enter school for the first time is not just a matter of fitting him with suitable clothes. A greater responsibility of the parent is to see that the child is equipped with the aids towards a normal and mental adjustment into a new life, according to the Educational Committee of the Illinois State Medical Society in a *Health Talk*.

The most important step in getting the child ready for school is a physical examination to determine the status of his health, to locate and correct any defects, to have him immunized against the communicable dis-

cases, and to see that he is stable emotionally.

Even in this modern day, a surprisingly great number of children have grown to school age without having been immunized against diphtheria and whooping cough, smallpox, typhoid and tetanus. This is the fault of the parent and not the child. Because the youngster has never been seriously ill, a visit to the physician does not seem necessary.

Up to school age the child has led a somewhat cloistered existence. His world has consisted of his family and a few neighborhood playmates. Entering school, however, his community enlarges and his contacts increase. Notably he, as an individual, is beginning his competitive world for the first time.

The physical examination should include the testing of the eyes and ears to determine their functional response. The child's ability to see and hear will reflect in good grades or poor ones. A child whose vision is impaired is apt to be thought dull and indifferent, as is the child who cannot hear. These attitudes are not only reflected in the classroom, but on the playground.

It is much easier to prevent disease than to cure it, and much easier to correct deformities when they are detected early than when the child is older. Nutritional deficiencies may be responsible for the child being tired all the time, making him apathetic to his school activities. His body machinery is not geared to meet the new and growing demands of school life. Plenty of food is not the answer, but rather an adequate, properly balanced diet.

Young children are not naturally kind. One of their class who is consistently inaccurate and slow to understand will soon be the object of nudges, smiles and childish disdain. The child who needs correction will soon withdraw from group activities, laying the foundation of emotional instability that will develop into a maladjusted adult.

Again the physical examination may reveal certain health conditions which require the child's program in school to be somewhat modified, giving him the opportunity to learn to carry on in a normal but limited manner.

A careful physical examination by a competent physician is the best insurance a parent can give to his child against the future. Certainly the chances are better for his developing into a strong healthy citizen. With corrections under way or completed, the child entering school for the first time is not only on an equal health level with his companions but equal too in his pursuit for education.

OBITUARY

Dr. George Elliott Atwood, aged 72, Waycross and Ware County Commissioner of Health, died as a result of a heart attack in a Waycross hospital, September 30, 1949. He was a member of a prominent McIntosh County family and was graduated from the University of Georgia School of Medicine, Augusta, in 1900. Shortly after his graduation he practiced medicine in Darien and Boca Grande, Fla. He was called to the U. S. Army Medical Corps in World War I in 1917 and served until 1925. Three years were spent in Puerto Rico, where he was post surgeon at San Juan with the 65th Infantry Division. Dr. Atwood was the father of the Waycross and Ware County Health Department. Great strides were made in his almost 25 years administration of city and county health. The new health center is a memorial of a sort to Dr. Atwood and the health work he accomplished in Ware County. He was a member of the Ware County Medical Society, the Medical Association of Georgia, and a fellow of the American Medical Association. He is survived by his wife, the former Miss Elizabeth Weisman Brown; two daughters, Mrs. T. H. Little, Waycross, and Mrs. S. K. Woodward, Darien; five sons, Elliott R. Atwood, Waycross; George

W. Atwood, Atlanta; Ted O. Atwood, Augusta; Maury Atwood, Waycross; Paul E. Atwood, Fort Lauderdale, Fla. A sister, four brothers, 14 grandchildren and one great-grandchild. Funeral services were held at Grace Episcopal Church. Burial was in Waycross.

* * *

Dr. Ephriam LaFayette Prince, aged 82, widely known Georgia and Tennessee physician, died at his Morganton home September 2, 1949. Dr. Prince had practiced medicine for 62 years. He worked with Dr. L. C. Fischer, the late Drs. E. C. Davis and Dorsey, in the early days of what is now the Crawford W. Long Memorial Hospital, Atlanta. He had not lost a mother in childbirth during his medical career. Dr. Prince's first wife, the former Miss Mollie Aiken, Ranger, N. C., died many years ago. Surviving children are Dr. A. L. Prince and Lester C. Prince, Morganton; Mrs. Ethel Lightsey, Brunson, S. C.; John F. Prince, Atlanta; Mrs. Mariam Poe, Russell Springs, Ky.; C. A. Prince, Churchill, Tenn.; and Paul Frank Prince, Benton, Tenn. His second wife, Mrs. Mary Anderson Prince survives with the following children, E. L. Prince, Jr. and William Prince. Also 17 grandchildren and 10 great-grandchildren. Funeral services were held at the Morganton Baptist Church with the Rev. Clinton Cutts officiating. Burial was in Morganton cemetery.

* * *

Dr. Warren L. Story, aged 84, beloved and well known Ashburn and Turner County physician, died of a heart attack at Tifton Hospital, Tifton, September 24, 1949. He was the son of the late William J. Story and Lydia Royal Story and was born in Dooly County. He graduated from the Atlanta Medical College now Emory University School of Medicine, Atlanta, in 1888. Dr. Story was an honorary member of the Turner County Medical Society, the Medical Association of Georgia, and a fellow of the American Medical Association. He was a Mason and a Shriner. He was married in 1899 to the late Stella Elizabeth Dasher Story who died three years ago. Survivors are his brother, H. S. Story, Ashburn, two nieces, Mrs. H. S. Alexander, Ashburn, and Mrs. Mailey Phillips, Tifton; three nephews, Alex, John J. and Warren Story, all of Ashburn. Funeral services were held at the Ashburn residence with the Rev. Louis Spivey and the Rev. W. L. Spivey officiating. Burial was in Rose Hill Cemetery, Ashburn.

BOOK REVIEWS

Anesthesia—Principles and Practice
by

Alice M. Hunt, R.N.

This new book is primarily intended for nurses but is both interesting reading and informative in a general way to the medical student and to the practitioner. It gives a clear and practical concept of anesthesia with attention focused on the patient as the center of all activity. It includes a brief history of anesthesia and also goes briefly into the physiology of anesthesia, the types of anesthesia, the premedication, pre- and post-operative care. It goes more into detail on the care of the patient on the operating table as to the position, strapping, etc., with which nurses would be more concerned than the doctor. It also goes more into detail as to the description of the anesthetic agents with their indications and the technic of use. This book is going to be a particular asset as an addition to a nurses library.

Doctors of Infamy
by
Mitscherlich and Mielke
Published by Henry Schuman Inc.
20 East 70th Street
New York 21, New York

Doctors of Infamy is an uncensored fully documented story of the Nazi medical crimes. These experiments "in the interest of science" were carried out with no reasonable purpose in mind and could have in no way added materially to our scientific knowledge. This book

gives the details of the Nazi physicians and their inconceivable murderous experiments. One has to read this book to fully realize that such medical atrocities could actually happen in our present day civilization. The material is well presented by two Germans, one a well known doctor, from direct testimony and documentation which was presented at the Nuremberg War Crimes trial. It is a book well worth the small price, and it should be read by every clear thinking physician. It shows what can happen when the medical profession sits by in silent acceptance of all political decisions.

Blood Transfusion

by

DeGowin, Hardin, Alsever

Published by W. B. Saunders Company
Philadelphia and London—1949

This is a comprehensive work covering the entire field of blood transfusion. It should be of interest to the student, to the clinician, and to the laboratory worker.

There is a history of blood transfusion followed by the indications for the different types of transfusions including blood, blood extracts, and blood substitutes. It covers the surgical as well as the medical indications, and goes into the subject of shock rather thoroughly.

For the laboratory worker it goes into the subject of blood groups and other factors in the blood quite thoroughly and includes detailed laboratory procedures for determining the anti-bodies in the blood. It also takes up reactions to transfusions and their causes and preventions and also goes into quite detailed discussion of the preparation of blood and other types of transfusions. For the clinician it goes into the administration of such transfusions and lastly goes thoroughly into the establishment and organization of a blood bank. This is indeed a comprehensive coverage of the subject of blood transfusion.

Clinical Aspects and Treatment of Surgical Infections

by

Frank L. Meleney

Published by W. B. Saunders Company
Philadelphia and London—1949

This is a comprehensive coverage of the subject of surgical infections. It is no compilation, but is based on personal experience and the experience of the department of surgery and other departments of Columbia-Presbyterian Medical Center.

Dr. Meleney stresses the bacteriologic aspect of surgical infections. He stresses the importance of obtaining precise information as to the identity of the bacteria present in a wound.

He brings out that antiseptics are beneficial only if they can serve the natural defense mechanism of the body against infection, and that antiseptics are poor because; 1 they are inactivated by proteins in the wound, 2 they encourage tryptic activity by destroying anti-trypsin; and 3, destroys healthy leukocytes. He emphasizes that one must integrate bacteriology, immunology, and the physiology of inflammation infections, and to best manage them.

This book takes up the various regions of the body discussing in detail the types of surgical infections with their management. Dr. Meleney discusses treatment from a sound physiological view point as well as bringing the reader up to date on this specific chemotherapeutic agents, including the sulfonamides, penicillin, streptomycin, and bacitracin. It is a book primarily intended for the student and the practitioner of surgery.

JOHN R. LEWIS, M.D.

Fundamentals of Otolaryngology

A Textbook of Ear, Nose and Throat Diseases

by

Lawrence R. Boies, M.D.

Clinical Professor of Otolaryngology, Director of Division of Otolaryngology, University of Minnesota Medical School, and Associates.

443 pages with 184 figures.

Published by W. B. Saunders Co., 1949. Price \$6.50

The general practitioner can put this brand new book to good use because it provides such brilliantly clear picture of the diagnosis and treatment of otolaryngological diseases. On every topic from the common cold to carcinoma of the larynx, it offers you a straightforward and clearcut type of guidance that you'll like. In each of the three sections (Ear, Nose and Throat) the author describes for you the principles of applied anatomy and physiology, methods of examination, and the latest diagnostic and therapeutic procedures for all diseases that may affect the region concerned. The last chapter, on Prescriptions and Therapeutic Procedures, list all the prescriptions that you need be familiar with in order to deal successfully with otolaryngological disorders. Special types of medical treatment (such as hot throat irrigations, etc.) are also described here. The excellent illustrations present many new concepts.

Clinical Biochemistry

by

Abraham Cantarow, M.D.

Professor of Biochemistry, Jefferson Medical College; and

Max Trumper, Ph.D.
Commander, H(S), USNR.

Lecturer in Clinical Biochemistry and Basic Science Coordinator, Naval Medical School National Naval Medical Center, Bethesda, Maryland.

Fourth Edition, 642 pages with 38 figures.

Published by W. B. Saunders Co., 1949. Price \$8.00

Completely up-to-date in every way, this New (4th) Edition tells you clearly and understandably just what the findings of biochemical test mean in terms of bedside medicine. This is not a book of formulas but one of interpretations—it bridges the gap between the biochemical laboratory and the bedside by explaining to you the clinical significance of test results. There is much new material and all of it is important to you. Brand new discussions are included, for instance, on: chemical changes in shock, fatty liver, lower nephron nephrosis, alarm reaction, goitrogenic agents, and new methods of studying adrenocortical function. Among the special features may be mentioned the specially arranged Index, which serves as an excellent review of Board examinations, and the Outline of Chemical Abnormalities in Various Disorders.

Operations of General Surgery

by

Thomas G. Orr, M.D.

Professor of Surgery, University of Kansas School of Medicine, Kansas City, Kansas.

Second Edition, 890 pages with 1700 step-by-step illustrations on 721 figures.

Additions or revisions have been made in every chapter for the New (2nd) Edition of this popular book. There is new material, for instance on the following: Callander's technic of amputation; modern methods of lung lobectomy; wound closure with steel wire; transverse abdominal incisions; blood vessel anastomosis; and total gastrectomy. Perhaps the most important change of all is the inclusion of new information on surgery of congenital malformations of the heart and great vessels. The features that made the first edition so popular have, of course, been retained. The illustrations, noted for their clear, step-by-step demonstrations of technic, have been increased in number—there are now 1700 of them on 721 figures. The accompanying text matter is, if possible, even more concise, practical, and understandable than in the previous edition. Many operations are described here which ordinarily appear only in books on the surgical specialties. The author realizes, you see, that in emergencies the general surgeon may be called on to perform operations of almost any nature. Yet, this is a book that will be used day-in and day-out, because it provides the essentials the fundamental principles and the latest approved technics—that you must have at your fingertips in the operating room.

Published by W. B. Saunders Co., 1949. Price \$13.50.

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TWO YEARS' EXPERIENCE WITH THE DIAGNOSIS OF UTERINE CANCER BY MEANS OF THE VAGINAL SMEAR AS A ROUTINE OFFICE PROCEDURE

H. C. FRECH, M.D.
Savannah

In 1847 Pouchet¹ attempted to study the normal sexual cycle in unstained vaginal fluid, but not until 1917 when Stockard and Papanicolaou² developed the rapid fixation and staining technic was accurate cytologic observation possible. The knowledge of endocrine physiology was tremendously advanced by their work with rodents, and Papanicolaou³ pointed out that a vaginal epithelial rhythm is present in women although not as clear cut as in the guinea pig because specific changes dependent on ovulation are not seen. In normal women changes visible in the vaginal secretion following ovulation are due not to the specific action of progesterone but to decrease in estrogen secretion following follicular rupture, thus⁴ the vaginal smear offers only indirect evidence of ovulation and the time of its occurrence.

The test is useful in estimating the quantitative changes in the amount of estrogens, and is of value in determining the functional activity of the ovaries as well as the adequacy of estrogen therapy in postmenopausal women.

In 1923 Papanicolaou observed the abnormal features of certain cells found in

the vaginal secretions of women with uterine cancer and in 1928 published his first paper on the subject⁵, followed by another in 1933⁶ and in 1941⁷ reiterated his belief that uterine cancer could be accurately diagnosed by vaginal smear. This was confirmed by Meigs⁸, Ayre⁹, Seibels¹⁰ and others^{11 18 19 20 21 22 23 24 25 26}.

While biopsy remains the only conclusive method of establishing a diagnosis of cancer, the vaginal smear has made the earlier diagnosis of uterine cancer possible;^{14 21 22 23 24 25} and until the etiology of cancer is discovered, the only way cancer can be controlled is by early diagnosis and eradication of the malignancy in its inception. Granted the cervix is readily visualized, and that cancer of this organ is believed to give early evidence of its presence by abnormal bleeding or by the development of a visible lesion, how is the physician to suspect cancer much less perform a biopsy of the cervix in the presence of a grossly normal cervix before abnormal bleeding?^{8 9 10 11 12 21 22 23 24 25} The average age at which clinical evidence of cervical cancer appears is about 48 years, but recently it has been shown that the disease may exist for months or years before the appearance of either a symptom or a sign,^{12 13 14 21 22 24 25} the average age of carcinoma in situ being about 36 years. Thus it seems that cancer of the cervix occurs on the average 10-12 years before clinical evidence of its presence becomes manifest. Unfortunately, even when its presence is manifested by bleeding, examination is postponed both by patient and physician, being too commonly ascribed to menopausal irregularity, and

often in those that request examination when bleeding first appears too often the situation is already hopeless.

Todd¹⁵ estimates that from onset of bleeding the chances of cure decrease 3 per cent per week, and has shown that the average delay from onset of abnormal bleeding until the institution of treatment is seven and a half months.^{16 17} Many lives are thus lost because the diagnosis of cancer may not even be suspected until the disease is beyond hope of cure. Admitted biopsy performed correctly will reveal most cases of early cancer, it is manifestly impractical to obtain repeated biopsy specimens from symptomless women; however, the vaginal smear is technically simple to procure and has been shown to be significantly more accurate than the initial biopsy in detecting preinvasive carcinoma of the cervix.²²

Gates and Warren¹⁸ collected statistics on approximately 5,000 patients screened by vaginal smear and estimates of accuracy varied from 96 to 99 per cent. Isbel¹⁹ reported 1,045 cases in which the overall accuracy of the vaginal smear was 98.5 per cent. Scheffey²⁰ reported an overall accuracy of 95 per cent, but positive smears were obtained in only 70 per cent of the cervical and 67 per cent of endometrial cancers. Meigs²¹ reported an accuracy of 74.5 per cent for cases of endometrial cancer and 89.5 per cent accuracy in cases of cervical cancer with a false positive error of 1.3 per cent, and practically the same results were reported by Kernodle²⁶ whose percentage of error was 2.1 per cent.

Graham²³ compared the accuracy of the vaginal smear with that of the biopsy and found the initial biopsy to be correct in 90 per cent, the initial smear was correct in 91 per cent, and by combining the two achieved a diagnostic accuracy of 99 per cent.

Isbel¹⁹ said "The vaginal smear method has proved unexpectedly valuable in the

study of early carcinoma and carcinoma *in situ*." Gates and Warren¹⁸ remarked "over-emphasis on the statistical accuracy seems to put the stress in the wrong place. . . . The thing that matters is whether the use of the method will discover cancer and initiate treatment earlier than would otherwise be done."

The reported incidence of cervical carcinoma *in situ* varies from 0.29 per cent¹⁸ to 3.7 per cent¹¹. The majority of women with preinvasive cancer have no symptoms and the cervix gives little evidence of disease^{10 11 12 13 14 21 22 24 25}. Pund¹⁴ reported only one out of four had abnormal bleeding, and the presence of cancer was not recognized from the gross appearance of the cervix in a single case.

Few reports of screening by vaginal smear have appeared. Pund²⁴ detected seven cases of preinvasive cancer by routine endocervical smear. Scheffy¹⁴ reported only seven cases of uterine cancer in 5,000 cases, but many of these were young women. Fremont-Smith²⁵, an internist, found six positive smears in the routine consecutive physical examinations of 385 women coming to his office. Four proved to have carcinoma *in situ*, one endometrial carcinoma, and the other thus far has not been confirmed. Of the four patients with cervical cancer no gynecologic symptoms were present in two, and the cervix was normal to visualization in all.

During the past two years it has been my practice to do a vaginal smear on every patient examined with or without gynecologic symptoms and to try to get them to return regularly at six months intervals for follow up and repeat smears. Three thousand eight hundred ninety-three slides on 1,112 patients have been examined; in addition 488 slides on 244 patients of other physicians have been examined. A comparison of the two studies is the purpose of this paper. In the series from my own practice

hereafter designated Series A 13 positive smears were found. Pathologically two proved to be adenocarcinoma of the ovary, one of which has been reported elsewhere²⁷; seven proved to be preinvasive carcinoma of the cervix; three to be invasive squamous cell carcinoma of the cervix, and one an adenocarcinoma of the uterus, giving a percentage accuracy of 94 per cent. In addition in Series A six positive slides were found that on biopsy proved to be squamous cell metaplasia giving a percentage error of 6 per cent. One of these later developed a full blown carcinoma of the cervix. Inflammation and diabetes may cause changes in the nuclear morphology of the cells which closely resemble those seen in malignancy. Similarly patients exhibiting vitamin B deficiencies may have nuclear morphology which is suspicious of malignancy. Twenty-one smears in Series A were called suspicious, eight were proven negative by biopsy; two were due to vitamin B deficiency and cleared under therapy; one had a pinworm infection of the vagina; two were in diabetics and when the diabetes was controlled the smears became normal, two were in women who were pregnant, two were in women that had trichomonas and when this was treated repeat smears were negative. There were eight patients whose initial smears were read as suspicious; they never returned so no follow up or recheck was obtainable. When these are included in the series there is an overall accuracy of 66 per cent, and an error of 34 per cent; excluding the eight patients who are unknown the overall percentage of accuracy is 74 per cent and the per cent error is 26 per cent. None of the patients with preinvasive carcinoma of the cervix presented any gynecologic complaints, nor were there any visible lesions on these cervices.

REPORT OF CASES

Case 1. Mrs. D. T. D., white female, aged 52, had had two negative studies at 6 months' intervals previous to her first positive film on February 24, 1948, a re-

check film on March 2, 1948 was also positive. Cervix and pelvis were negative. A D&C and biopsy of the cervix were done on March 18, 1948 and pathologic report reads: "Preinvasive squamous cell carcinoma in three of the endocervical glands of the large section of cervical tissue. Chronic inflammation of the five small sections of cervical tissue, no tumor tissue is seen in the latter. In the uterine scrapings there are occasional minute fragments of atrophic endometrium and several small fragments of tumor tissue, without relations, similar to that in the section of cervix."* One month elapsed between biopsy and surgery and pathologic examination of the removed specimen revealed "squamous cell carcinoma of the cervix in four of the eight sections. In three of the sections the tumor is preinvasive on the surface and lining the endocervical glands. In the fourth there is a small area in which there is early invasion. This is 1 cm. above the external os and involves an area 0.15 cm. long. The tumor here extends downward beneath the surface to a depth of 0.2 cm. Squamous metaplasia of some of the endocervical epithelium. Diffuse, regressing endometriosis of the body of the uterus which is most pronounced in one horn over an area 1.5 cm. in diameter."** Whether this early invasion was present at the time of the original biopsies and missed or whether it occurred within the time interval between the biopsy and the surgery is open to conjecture. On September 15, 1948 she had developed a skin cancer of the nose which was removed by a dermatologist. She is living and clinically free of the disease when last seen March 17, 1949.

Case 2. Mrs. K. P., white female, aged 59, had a positive smear, and proved to have adenocarcinoma of the ovaries²⁸. Two years previously she had had an adenocarcinoma of the breast removed; at necropsy she proved to be suffering from three distinct and separate carcinomas of the head of the pancreas and a separate and distinct carcinoma of the kidney. There were no metastases anywhere except in the liver and these came from the pancreatic tumors; all the other tumors were primary²⁹.

Case 3. Mrs. A. R. R., white female, aged 52, first seen on July 20, 1948. Complained of menopausal symptoms, and had a basal cell epithelioma of the nose (Dr. S. F. Rosen and Dr. Lee Howard). She had had a gallbladder visualization and a gastrointestinal series because of digestive complaint and suspicion of malignancy. Cervix and pelvis were negative. A vaginal smear was positive for squamous cell carcinoma and a repeat smear on July 22 was also positive. A biopsy performed on July 29 revealed "squamous cell carcinoma in one of five sections of cervix; the neoplasm is preinvasive in the section." A panhysterectomy was performed on August 12. Pathologic report reads "chronic inflammation, coagulation necrosis, and ulceration of the entire junctional endocervix, portio vaginalis, and portions of the endocervix; a few foci of squamous metaplasia remain. Bilateral laceration of the external os with eversion of one lip. No remains of preinvasive cancer seen."** Patient remains clinically cured.

Case 4. J. J. M., white female, aged 54, was first seen October 18, 1948 with menopausal complaints. Cervix and pelvis negative; vaginal smears were suspicious. Repeat smears on October 30, 1948 were definitely positive. A conization of the cervix by Ayre³⁰ scalped was done on November 13. Pathologic report: "Imperfectly differentiated squamous cell carcinoma confined to the natural surface (preinvasive) in four of the six sections of the excised cervix; the carcinoma does not approach the surgical margin."* A panhysterectomy was done on December 1, 1948. Pathologic report: "Slight atrophy of the body of the uterus which measures 4x4x3 cm. Regressing super-

*Pathologic report from University of Georgia School of Medicine, Department of Pathology, Augusta.

ficial adenomyosis. Bilateral laceration of the patulous external os of the cervix. The endocervix is extensively cauterized and there is a necrotizing inflammation of the cervix. Small remnants of preinvasive carcinoma at the junctional endocervix in one of six sections. Atrophy of both ovaries, cysts 2 cm. in diameter of the epoophoron of one tube and 2 small hydatids of the other tube; bilateral residual chronic parasalpingitis."* This patient also had at her initial visit a basal cell epithelioma of the nose.

The other four patients, aged 56, 53, 47 and 37 respectively, had positive cytology slides both on the initial slide and the recheck; all were proven by biopsy to be preinvasive carcinoma of the cervix and this was also confirmed by pathologic examination of the surgically removed specimen and for the sake of brevity are omitted from detailed discussion.

There are those who have recommended deep and extensive cauterization of the cervix as a method of treatment of preinvasive carcinoma of the cervix, but as noted in two case reports one cannot be sure of getting all of the tumor. It is to be clearly understood that total hysterectomy with a wide excision of the vaginal cuff is not recommended as the routine treatment of choice in preinvasive carcinoma of the cervix, but was done in these cases to obtain the specimen for complete pathologic examination.

Case 5. E. C., a colored female, aged 48, complained of vertigo and pain in the left lower abdominal quadrant and back when first seen on December 10, 1947. Her L. M. P. had been 2 years previously. Cervix was enlarged and hard and clinically was carcinoma. Papanicolaou stains were positive and biopsy revealed invasive squamous cell carcinoma.* She was treated with deep x-ray and radium and when last seen on March 9, 1949 was well and free of any clinical evidence of disease.

Case 6. Mrs. C. A. L., white female, aged 62 years, was first seen on July 10, 1948 complaining of lassitude, loss of weight for the past six months, and indigestion, and asked for a general checkup. L. M. P. had been in 1937. She had no gynecologic complaints, but on examination there was a small papillary growth the size of a green pea on the anterior cervical lip. Vaginal smear was positive for squamous cell carcinoma and biopsy performed on July 15, 1948 revealed "invasive imperfectly differentiated squamous cell carcinoma of the cervix in three sections, in three additional sections the carcinoma is limited to the natural surfaces (pre-invasive).**

She was given deep therapy and this was followed by radium, but a hard nodule persisted in the anterior cervix and Dr. Charlotte Donlan advised a radical hysterectomy with bilateral iliac node dissection which was performed on November 24, 1948. The pathologic report reads, "Gross appearance: The uterus and cervix are smaller than average. On bisection there is a firm, necrotic appearing area at the external os which extends throughout the cervical canal. Microscopic sections of the cervical blocks show a nonstaining necrosis at the surface that is of considerable depth, extending

into the muscle layers. The few stainable areas are vascular granulation tissues, through which there are a moderate number of pus cells. The appearance is that of necrotic, pyogenic slough, rather than dead tumor cells. Sections from the firm areas in the surrounding fat shows lymphoid tissue, through which there is a vascular, inflammatory infiltration. There are no stainable tumor cells in any of the sections. Diagnosis: necrosis of the outer cervix and cervical canal, most likely due to radiation. There is no appearance of recurrent carcinoma in the tissue examined."* She is living and well and clinically free of disease.

Case 7. Mrs. E. D., white female, aged 60, was first seen on January 10, 1948, complaining of pain in her lower abdomen with a mass in her right side extending over to the midline. Her left adnexa was negative. On July 30, 1946 she had had an attack of lower abdominal pain, soreness, profound weakness, and a profuse bloody vaginal discharge. Clinically, adenocarcinoma of the ovary was suspected. Papanicolaou smears were positive. At surgery the tumor had invaded the uterus and sigmoid. The pathologic diagnosis: "Intracystic papillary carcinoma of the ovary attached to and extending into the uterus."** Patient died 10 days following surgery of uremia.

Case 8. Mrs. M. T., white female, aged 65, was first seen on April 5, 1938, complaining of spotting and bleeding for past 6 months, following a menopausal amenorrhea of 10-15 years. Uterus was only slightly larger than normal; Papanicolaou stains were positive for endometrial adenocarcinoma. Patient refused D&C and radium, but consented to surgery. Pathologic report: "Adenocarcinoma of the previously opened body of the uterus diffusely involving the upper 3.5 cm. extending through to the broad ligament in the region of the left fallopian tube, being up to 2 cm. in thickness. Residual cystic glandular hyperplasia of the endometrium. The myometrium is atrophic. A detached mass of tumor tissue measuring 4x3x2 cm. attached to this is a short section of the left fallopian tube and a small amount of adipose tissue. Chronic inflammation of the attached cervix, an atrophic tube and ovary."* Patient expired February 20, 1949 with generalized peritoneal carcinomatosis.

In Series B, slides examined for other physicians, there were three positive slides; one proved to be a preinvasive carcinoma of the cervix; one an invasive carcinoma of the cervix; and one an adenocarcinoma of the rectum.

One was from a white female, aged 61, that had consulted her physician because of a strangulated ventral hernia and upon general physical examination was found also to have a squamous cell carcinoma of the cervix Stage IV. Smears were positive, as was the biopsy of the cervix. The hernia was repaired and she received deep x-ray therapy both intravaginally and through four pelvic portals but expired April 22, 1949.

The second, a white female, aged 51, was picked up by positive smears, and a biopsy revealed a pre-invasive carcinoma of the cervix.* A total hysterectomy was performed and the pathologic report revealed "pre-invasive carcinoma of cervix."**

The third, Mrs. D., white female, aged 61, had a history of having attacks of fever, followed by a purulent vaginal discharge. This had recurred off and on for 4-6 weeks. The smears were positive for adenocarcinoma. Two D&C's and two biopsies of the cervix revealed no malignancy.* An exploratory laparotomy disclosed an adenocarcinoma of the rectum which was adherent to the posterior aspect of the uterus and the

*Pathologic report from University of Georgia School of Medicine, Department of Pathology, Augusta.

**Pathologic report from Clinical Laboratory, Dr. Lee Howard, DeRenne Apartments, Savannah.

posterior culdesac. Before death she developed a rectovaginal fistula; and, evidently, must have had a communication between the vagina and the rectum through the posterior culdesac at the time the smears and D&C were done which was too small to be visible through which the cells were being shed into the vagina. Autopsy confirmed the diagnosis of adenocarcinoma of the rectum.

There were 10 patients in this group whose slides were reported suspicious that on repeat smears and biopsies were proven to be negative, an error of 4.1 per cent; an accuracy of 95.9 per cent.

In order to check the interest of the patients in themselves, 935 were reminded by phone and letter that it was time for them to return for a six months' check up. Of this number 474 or 50.7 per cent returned; 461 or 49.3 per cent did not return.

Discussion

The vaginal smear has definitely proven its value as an aid in diagnosing unsuspected preinvasive carcinoma of the cervix in private practice, and the overall accuracy of the method corresponds closely to the reported results from the larger clinics. In Series A the procedure revealed malignant cells in seven cases of normal appearing cervices and thus made it imperative to do biopsies. In Series B there was no case in which clinically the doctor did not suspect malignancy, yet there were only two proven malignancies of the cervix and only one of these was in the preinvasive stages, while 10 cases that had suspicious slides proved to be negative by biopsy or repeat smear. Thus it is readily seen that in order to obtain the best results it should be carried out as a routine procedure on every patient the same as the Wassermann.

No patient should be treated on the smear diagnosis alone. The presence of malignancy should be proven by biopsy and if necessary by multiple and repeated biopsies in order to confirm or disprove the smear diagnosis; and to determine the degree of invasiveness or noninvasiveness of the malignancy, as it is impossible to determine this from the smear.

It is felt that if the method is used by every physician routinely then the mortality from uterine cancer will fall, but as revealed by the number of patients (49.3 per cent) that failed to return for six months' check up despite the fact that the importance of so doing was explained to them, and they were reminded by phone and letter one can readily see that a certain percentage of deaths due to uterine cancer are probably ascribable to the lethargy of the patient.

Total hysterectomy with a wide excision of the vaginal cuff is not recommended as the procedure of choice in the routine treatment of preinvasive carcinoma of the cervix, but probably is the better procedure in premenopausal women, while radium and x-ray are probably the better for postmenopausal women; however, each case still has to be evaluated separately.

Conclusions

A study of the value of the use of the Papanicolaou technic in private practice is reported, and a comparison is made between the results obtained when the method is used as a routine procedure and as an occasional procedure when a cervical lesion is present or when on the history the physician suspects malignancy. Probably about 5-10 per cent of the deaths from uterine cancer can be ascribed to the lethargy of the patient in not having a pelvic examination every six months. The accuracy of the method as a routine procedure in private practice closely parallels that reported by the larger medical centers.

From the results obtained by cauterization I do not feel that this is the treatment of choice, as one is not sure of having destroyed all of the tumor, or tumor-bearing area by this method.

The Papanicolaou technic is definitely an aid in screening patients and its importance lies in the fact that it points out which normal appearing cervix should be biopsied,

thus revealing to the clinician many cases of unsuspected preinvasive carcinoma of the uterus.

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TUMORS OF THE PAROTID GLANDS

Review of 57 Cases

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Introduction

Parotid gland tumors comprise about 0.1 per cent of all neoplastic diseases. Though not one of the more common tumors, they do occur with sufficient frequency to present repeatedly a problem to most practicing surgeons. The mixed tumor of the parotid has long been recognized as having certain peculiar characteristics, and surgical excision of parotid lesions carries a definite risk of damage to the facial nerve. This paper is a review of a group of patients who had tumors of the parotid glands, with an analysis of the type of treatment used and the results obtained.

In considering parotid tumors there are three problems which present themselves; these may be briefly stated as follows:

- The high incidence of recurrence of apparently benign mixed tumors even after long periods of time. The explanation for this and efforts to solve this problem have been points of emphasis to workers in this field for many years.

- The large number of cases in which partial or complete paralysis of the facial nerve follows surgical procedures on the parotid glands.

- The frequency of and poor outlook in cases with malignant lesions of the parotid glands.

This paper is a review of 57 cases of parotid gland tumors treated at the Robert Winship Memorial Clinic. The data have been analyzed with particular reference to the three problems as stated above.

Material

Between October 1937 and October 1948, 57 cases of neoplasms of the parotid gland were collected. This review is not concerned with chronic parotitis, Mikulicz disease, or other miscellaneous lesions. In 54 of the 57 cases the follow-up is complete. All of

these have been seen within the past ten months.

Of the 54 cases, 29 (54 per cent) were mixed tumors, 5 (9 per cent) were adenocystoma lymphomatosum, 2 (4 per cent) were simple adenomas, and 18 (34 per cent) were carcinoma. In other words, 66 per cent of the patients had benign and 34 per cent had malignant tumors. This percentage of malignant tumors is somewhat higher than that usually reported from general hospitals. This can probably be explained by the fact that this material was collected from a tumor clinic. Taylor and Gareelon¹ report 21 per cent carcinomas in a series of parotid tumors from the Massachusetts General Hospital.

BENIGN TUMORS

Mixed tumors: Of the 29 cases of mixed tumors, 21 occurred in females and 8 in males. The average age of the patient was 44.5 years and the average duration of symptoms was 7.4 years. Although the tumors varied widely in size, measuring from 1 to 30 cm. in greatest dimension, the average size was 4.2 cm.

In the treatment of these cases, 25 had surgical excision, 2 had excision and x-ray therapy and 1 had x-ray therapy alone. The remaining case was treated elsewhere. The patient having radiation alone refused operation because she feared facial nerve damage. Of the 2 patients having both radiation and surgery, one was a patient with a tumor measuring 25x30x30 cm., and the other received radiation before being seen in the clinic.

Of the 27 cases treated surgically, there were three recurrences. Eight have gone less than 3 years, 7 from 3 to 5 years and 9 have gone 5 years or longer without recurrence. The oldest case has been 9½ years without recurrence.

In other words, 27 patients had what was considered a complete excision of the tumor with a recurrence rate of 11.1 per cent. It

is interesting to compare this figure with that obtained by other workers in this field. In 1943 McFarland² reported an average recurrence rate obtained by four different authors; it was 33 per cent. Taylor and Gareelon¹ found a 10 per cent recurrence rate in 85 patients operated on, while Swinton and Warren³ reported 4.3 per cent recurrence rate in 51 patients operated on. It has been pointed out that the likelihood of recurrence is greater in those patients who have had previous recurrences. Two of our recurrences fall in this group. Also it is well recognized that these mixed tumors may recur after long periods of time. One of the patients in this series had recurrence after eight years and another after six years.

Three possible explanations can be given as to why these benign mixed tumors recur:

1. These tumors are lobulated and a very small lobule may be overlooked at the time of operation.
2. The tumor capsule may be opened at the time of excision implanting tumor cells in the wound.
3. These mixed tumors may be multicentric in origin.

Adenocystoma lymphomatosum: Like the mixed tumor this neoplasm presents a rather unusual but typical microscopic picture. It is more frequently termed a Warthin's tumor and comprised 9 per cent of the total series. Of the five cases all were treated by surgical excision without nerve damage. Three have gone two years, 1 four years and 1 five years without evidence of recurrence.

Of a much larger series of parotid tumors at the Memorial Hospital, 10 per cent were found to be Warthin's tumor.

Adenoma: Two patients in this series had a simple adenoma of the parotid gland. Excision was done in both with no recurrence after two and three years.

Nerve damage: The possibility of damage to the facial nerve has been a factor which has caused many surgeons to procrastinate or even refuse to operate on parotid gland tumors. Of the 34 patients with benign tumors, the nerve was damaged at operation

in 4 cases, or an incidence of 11.7 per cent. Taylor and Garcelon¹ report nerve damage in 7 per cent of 85 patients operated on, while Swinton and Warren³ report 20 per cent of 51 patients operated on had nerve damage. A closer analysis of the nerve injury cases in this series is interesting. In 2 cases the nerve or nerve branch was deliberately divided because it entered the substance of the tumor. Only by sacrificing the nerve could the tumor be completely removed. In the remaining 2 cases the cervicofacial branch of the nerve was damaged. Both of these had had previous operations. In no case of primary operation was the facial nerve accidentally damaged.

What can be done to prevent or minimize the damage to the facial nerve? The soundest principle to gain this end is meticulous dissection with complete hemostasis. The use of a coagulating current is of considerable benefit in stopping the many small bleeders. By applying this same rule the surgeon is more likely to get the tiny lobule which may otherwise be left behind and result in a recurrence. Dr. Hayes Martin has recently advocated deliberate exposure of the facial nerve just distal to its point of emergence from the styloid foramen. He feels that this is a more logical procedure than attempting to expose a more peripheral twig, and then dissect backward to the trunk. Such a procedure has been advocated by other workers. It does not seem advisable to attempt exposure of the nerve in the more superficially located tumors.

MALIGNANT TUMORS

As previously stated, 18, or 34 per cent, of the parotid tumors in this series were malignant. The average age of the patient with carcinoma was 54 years, the average duration of symptoms 5 years, and the average tumor size 5 cm. The patients with parotid carcinoma were on the average 10 years older than those with a mixed tumor. Fur-

ther analysis shows that 47 per cent of the carcinoma cases were over 60 years of age, while only 12 per cent of the mixed tumor cases were in that decade.

Although the average duration of symptoms was five years, half of the malignant cases had symptoms for less than one year. In 6 of the 9 remaining cases it was felt by the pathologist that the carcinoma arose in a pre-existing mixed tumor.

It should be mentioned that 9 of the 18 cases in this group were treated elsewhere before being seen in the clinic. Most of these were in advanced stages of the disease when first seen.

Taylor and Garcelon¹ in reviewing 61 cases of parotid carcinoma found that 47 per cent had regional lymph node metastases, and 25 per cent had more distant metastases. This is contrary to the previously held idea of McFarland² that metastases in parotid carcinoma are unusual.

In analyzing the treatment of these patients they were divided into three groups and the result in each group was determined.

1. Radiation only: Because of the advanced stage of the disease locally or because of distant spread, 11 cases were not considered suitable candidates for surgical excision. Radiation alone was given to this group. Nine of these are dead and 2 are alive with disease for one and two years.

2. Secondary surgical procedures followed by radiation: As stated above, many of the patients in this group had had previous treatment, surgery, x-ray or both, before being seen. In 2 cases surgical excision was attempted even though a previous operation had been done. Both of these patients received postoperative radiation. One is a recent case; the other is alive with disease after three years.

3. Primary radical surgery followed by radiation: Five patients were seen initially in a stage of disease which made them suitable for radical surgery. These were all given postoperative radiation. Of this group 1 has a questionable recurrence and the remaining 4 are free of disease from three months to six and one half years.

Although this group is small and the cases have not been followed sufficiently long to be definite, it is felt that early radical surgery followed by radiation gives the best prospect for cure. Radiation alone is of definite palliative value, but it cannot be relied upon to eradicate disease. The over-

all outlook in treating carcinoma of the parotid does not seem optimistic. However, closer examination of the results in the favorable cases gives a more hopeful outlook. If for no other reason, the possibility of malignancy is ample justification for operation on all parotid tumors as soon as the diagnosis is made.

Summary and Conclusions

1. Through meticulous surgery and complete hemostasis it is possible to excise mixed tumors of the parotid gland with an anticipated primary cure rate of 90 per cent or better.

2. Damage to the facial nerve in parotid gland surgery can be minimized by careful dissection. In the deep seated tumors it seems advisable to deliberately expose the nerve.

3. Thirty-four per cent of parotid tumors in this series were malignant. In patients over 50 years of age with a history of less than a year or history of recent enlargement of the parotid, carcinoma should be the diagnosis until proven otherwise.

4. There is a definitely hopeful outlook for the patient with parotid cancer who is treated in time by radical surgery and radiation.

5. Radiation alone, though not of curative value, has a definite place in palliation of the parotid cancer patient.

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WAX CRAYONS POISON CHILDREN

Several cases of severe poisoning in children from eating wax crayons have been reported, according to an editorial in the current (Oct. 22) *Journal of the American Medical Association*.

After eating red, orange, or yellow crayons, small children developed a condition known as methemoglobinemia, in which changes occur in the oxygen-carrying red pigment of the red blood cells, the editorial says.

The condition is believed to result from absorption of dyes used to color the crayons. It also has been reported in babies from drinking well water containing excessive amounts of nitrates and from unlaundered diapers newly stamped with aniline dyes.

Methylene blue, a dye, is effective in treating the poisoning, the editorial points out.

THE BORDERLINE DIAGNOSIS OF CARCINOMA OF THE BREAST

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The breast is one of the most common sites for the development of carcinoma in the female. It is, however, also one of the most accessible organs for diagnosis and treatment. The radical surgical principles described by Halsted have not been surpassed by any other therapeutic procedure. Despite all of this, the curability rate of carcinoma of the breast still remains too low. It is, therefore, necessary to focus our attention on the problem of making a diagnosis in the earliest phase possible, both clinically and microscopically, rather than waiting until a full grown lump indicates the diagnosis. To use a quotation by J. S. Rodman¹, in 1920, "Our results can only be improved by operating in the precancerous stage. There is a time in the life history of every cancer of the breast when it can be removed completely without even the probability of recurrence or metastasis." Rodman further stated that any abnormal condition in the breast has a potential danger of becoming malignant and therefore must be carefully watched by a physician who thoroughly understands it. It is necessary to emphasize the importance of recognizing and instituting treatment for carcinoma of the breast while it is in the precancerous stage or, if cancer has developed, while it is still localized and there is no evidence of metastasis. The proper evaluation of the existing process in the breast and the institution of appropriate therapy offers us the only hope of gaining any headway in the cure of cancer of the breast.

The breast presents many histologic complexities during the life cycle of the female,

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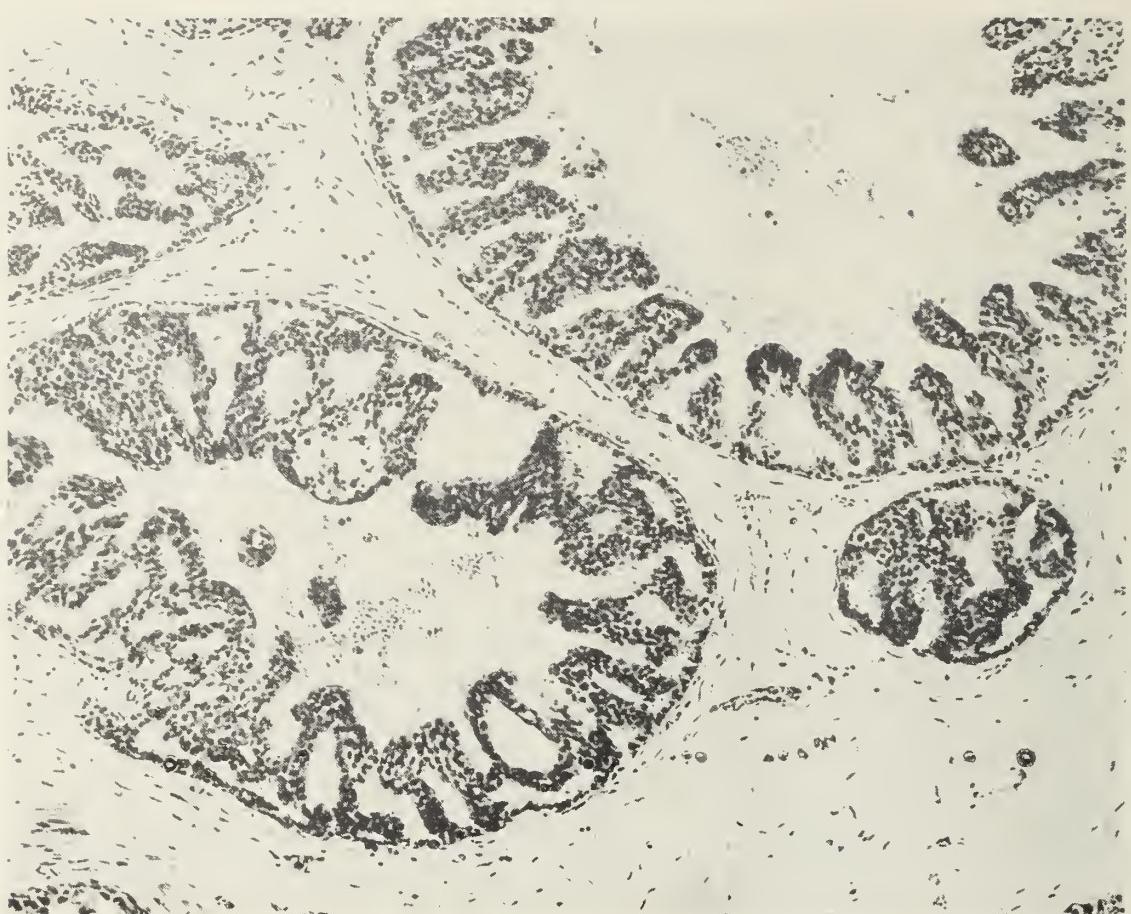


Figure 1. The ducts contain deeply pyknotic cells in a papillary arrangement and red cells are visible in the lumen.

and the understanding of this requires a thorough knowledge of the experimental work carried out in lower animals, as well as comprehension of the physiologic processes, the physiopathologic changes, and the pathologic changes of the breast.

A brief review of the experimental work on the behavior of cancer in the mouse by various investigators has provided some very interesting data which, however, does not seem to apply to human cancer.

The mouse carcinomas are predominantly acinar, whereas human cancers are ductal in their origin. Metastases in mice are rare, and are primarily to the lungs and the lymph nodes. It has been noted that the bearing of young increases the incidence in mice and decreases it in humans. Women who have borne children have a statistically lower incidence of breast carcinoma than those who have not, with the possible ex-

ception of those with five or more pregnancies. The incidence of breast carcinoma in nulliparous women may be in part due to endocrine disorders which affect both the reproductive ability and the incidence of breast disease. The ratio of carcinoma of the breast in nulliparous to parous women has been described as being from 1.5 and 2:1.

Estrogen increases the incidence of mammary cancer in cancer strain mice. There is also no evidence that the use of estrogens increases the incidence of carcinoma of the breast in women. There is one exception to this, and that occurred in males who had been treated for carcinoma of the prostate with estrogenic substance.

Physiology

The breast responds to a series of physiologic stimuli and responses from adolescence through the postmenopausal phase,



Figure 2. Epithelial activity with fibroblastic resistance.

and in some instances there is an over- or under-stimulation of the ductal system or the stroma until an apparent normal physiologic process becomes an abnormal process or a pathologic process, acquiring invasive or metastatic potentialities. Under these circumstances we might ask ourselves this question, "Is cancer of the breast the result of a constant everchanging condition in the histologic component of the breast and a further series of changes that eventually become malignant, or does the cancer develop spontaneously?"

From birth to adolescence mammary development is reasonably stable; carcinoma is practically unknown. Histologically, the period of adolescent mammary development may be defined as beginning with epithelial and fibrous proliferation and terminating with the onset of lobule formation some

months after the onset of menstruation. In normal cyclic women the changes in the breast are described as proliferative and regressive. The proliferative stage has its onset usually at the cessation of menstruation, and is characterized by expansion of the duct system with increase in size and amount of epithelium in the terminal tubules. The surrounding connective tissue appears edematous. The regressive changes occur just before and with the onset of menstruation. There is less epithelial activity, and the connective tissue stroma does not appear to be edematous.

During pregnancy the breast shows such changes as epithelial proliferation, dilatation of terminal tubules, and increased activity of the acini. There is expansion of both ductal and lobular system.

Benign and malignant lesions of the

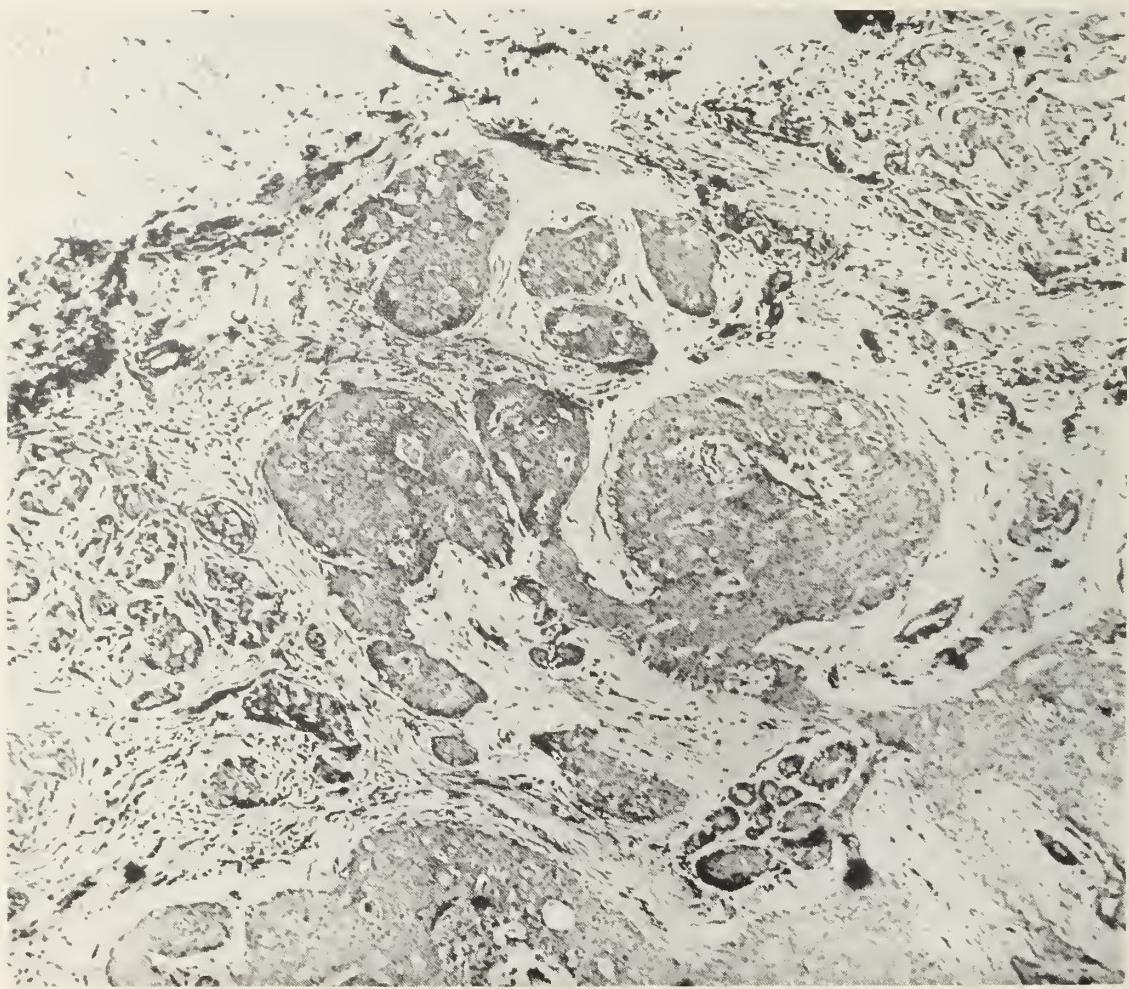


Figure 3. Epithelial hyperplasia confined to the ducts.

breast will respond to physiologic changes in pregnancy. Chronic cystic mastitis will disappear. Fibroadenoma and carcinoma may be markedly accelerated. Residual lactation may be the seat of chronic inflammation. It may be difficult to distinguish it from cancer, both clinically and pathologically.

After lactation there is a narrowing of the tubules with regeneration of periductal and perilobular connective tissue. Repeated pregnancy seems to extend lobular development; in the absence of childbearing their size and number decline and irregularities appear.

During the senile or involutional phase of the breast, such as those that occur during the menopause, the breast may enlarge

due to fat. Other changes are lobular irregularities, collapse of the epithelial structures, cystic dilatation of ducts, and sclerosis and obliteration of small ducts and vessels.

Pathology

The knowledge of breast physiology provides the background for interpretation of the underlying pathologic condition. These physiopathologic conditions are mastodynia, fibroadenoma, papilloma, adenosis, apocrine epithelium, chronic cystic disease, lobule alteration, carcinoma, and sarcoma. A variety of histologic interpretations are given to the above list, the result of which at times adds considerable confusion to the individual from the standpoint of his proper interpretation of the processes arising within the breast and to the differentiation

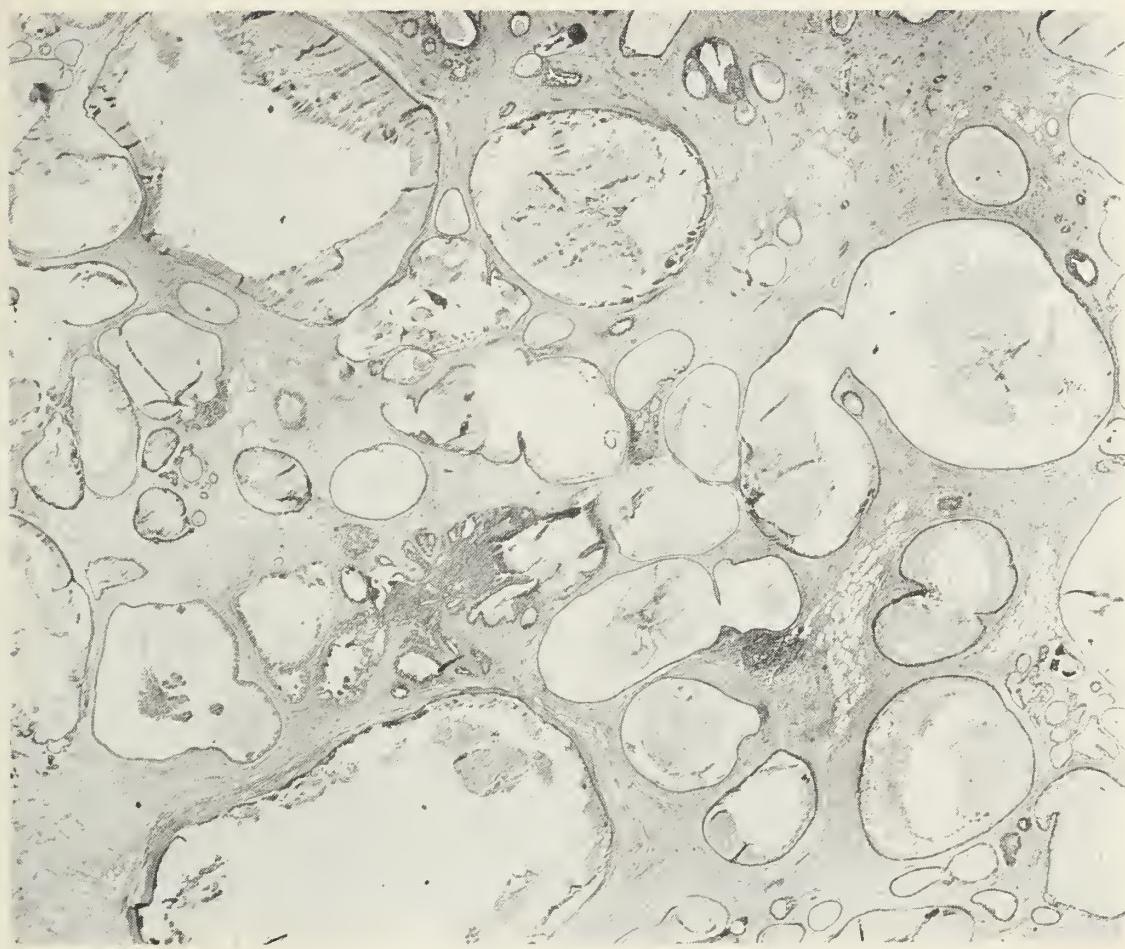


Figure 4. Large cystic areas with intralobular activity apparently invasive.

between benign and malignant. The usually predominating change in the breast is that of cystic disease in association with benign or malignant processes. For simplicity, these histologic changes may occur in certain age groups and present a variety of symptoms such as pain, soreness, and discomfort during the menstrual phase, indefinite areas of induration, or circumscribed tumors.

Mastodynia is characterized by pain and premenstrual soreness, which may be unilateral or bilateral; it occurs between the ages of 20 and 40, and is usually seen in women of low fertility.

Fibroadenomas usually occur during adolescence or early maturity, and are frequently modified by pregnancy. Malignant changes during pregnancy are relatively

rare.

Adenosis shows the presence of nodules which may be single or multiple, usually at the periphery of the breast, the breast being saucer-shaped, and the patients are usually in the late 30's or 40's. Usually in cancer there is a solitary area of induration compared to the sharp-like edge of the tumor in adenosis.

Cystic disease usually occurs from age 40 to 45; a solitary cyst is the most benign type of lesion found in the cancer age, and sometimes it is difficult to differentiate from a malignant lesion.

Intracystic papillomas may occur in both benign and malignant conditions and there is usually a sanguineous discharge. There may be single or multiple areas. Papillary hyperplasia is usually distributed in both

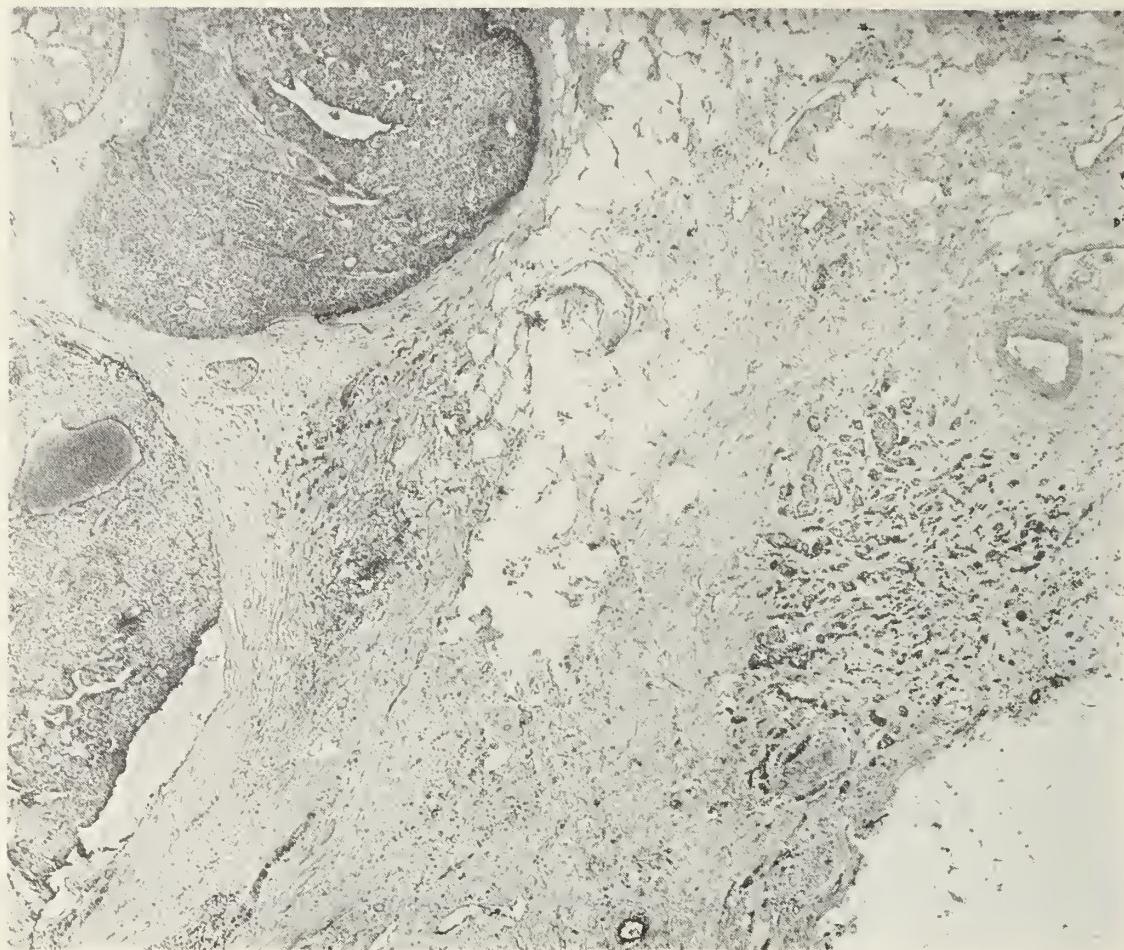


Figure 5. The ducts are filled with epithelial overgrowth with evidence of infiltration in small nests.

breasts in case of adenosis. An intracystic papilloma occurs more in women during or after menopause.

History

For the clinical and pathological interpretation and proper therapy, the following information should be obtained: (1) date and onset of the lump, soreness or tenderness; (2) the relationship of pain, soreness, and/or change in size of tumor during the menstrual cycle; (3) accurate menstrual history; (4) date of last menstrual period; (5) number of pregnancies; (6) history of lactation; (7) discharge from nipple; (8) history of previous operations; and (9) history of endocrine therapy. Having obtained such information the breast is then examined, and a pelvic examination should be included, for often one finds pelvic

disease in association with breast disease. It should be pointed out that tenderness, induration or a specific lump may change before and after menses, therefore one must note the time of examination in relation to the menstrual cycle.

Many patients present a variety of clinical symptoms such as premenstrual soreness, pain, tenderness, indefinite area of induration, or a circumscribed tumor. These conditions may be unilateral or bilateral. Pain, tenderness, soreness, and area of induration may disappear with the onset of the menstrual cycle in some cases.

A few years ago Dr. Willard S. Hastings and I undertook to study a group of patients by routine examination of surgical specimens of 490 cases of carcinoma of the breast and 179 cases of cystic disease. Of

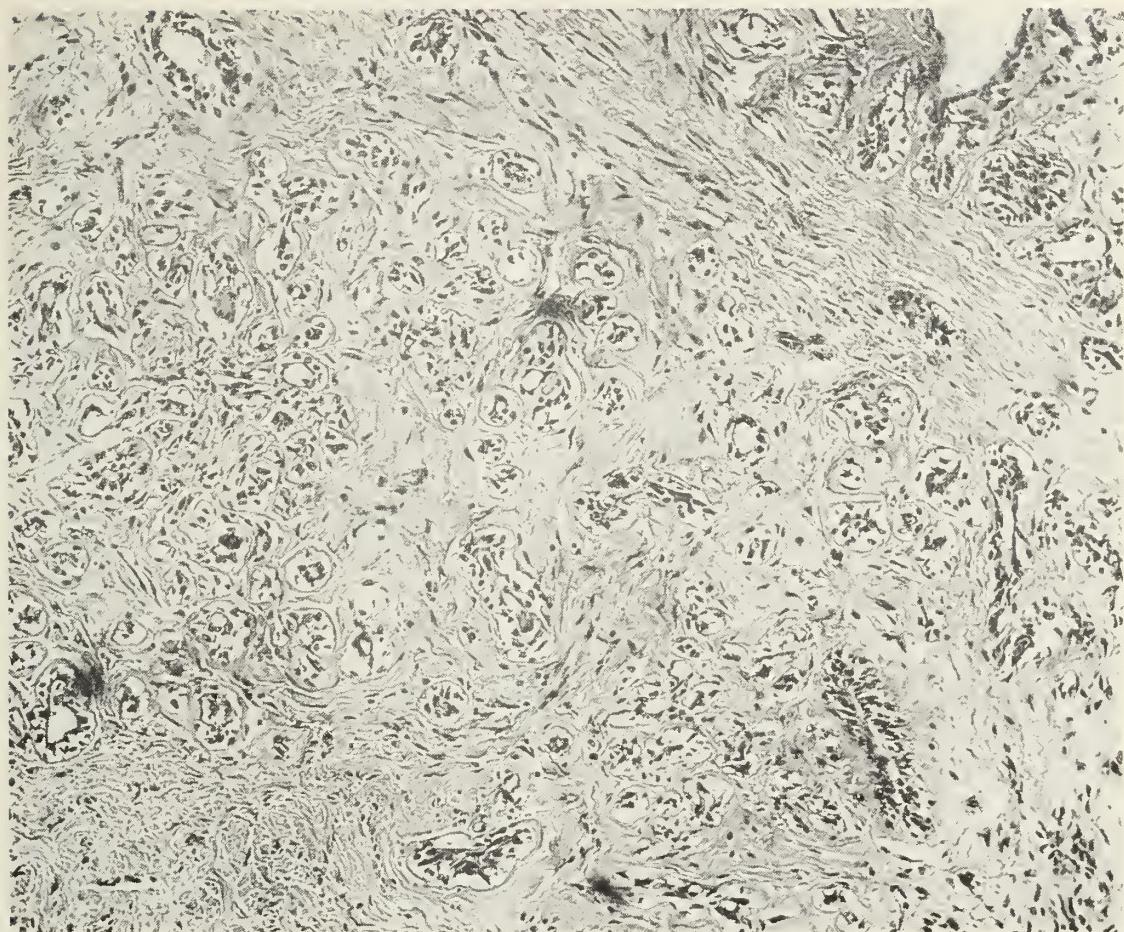


Figure 6. Epithelial hyperplasia with hyalinization of the interstitial and intralobular fibrous tissues.

these, 41 were recorded in whom early carcinoma was discovered histologically, chiefly in association with cystic disease, or proliferative changes suggestive of early carcinoma.

In the group of patients which had been observed for a period of 15 years, with the average being more than 5 years, some of the signs and symptoms were unilateral and some were bilateral. Some of the patients developed painful breast and indefinite areas of induration during the time of periodic follow-up examination for other conditions. Pain and tenderness appeared to be the most noticeable symptoms in association with the lump; the latter varies from an indefinite area of induration to a circumscribed tumor. Bleeding of the nipple occurred in a few instances. In several of these patients it was not possible to diagnose

carcinoma clinically with assurance. In some the suspicious area was microscopic in dimension. Multiple areas were often observed in clinical and microscopic examinations. When these areas are small and few, it is obvious that chance plays a part in their discovery, and in many cases they were probably missed, though the reaction in the stroma draws attention to the involved area during the gross study. This is regarded as more or less a brief progressive change, and therefore the ratio between the figures given has little statistical significance. A much larger group in which frank cancer and cystic disease were found together often showed a similar secondary change due to tumor growth.

A few cases are indicative of the problem in differentiating between a benign and a malignant process. The most advanced cases

will not be reported, but only those which showed evidence of a malignant change of the borderline type.

REPORT OF CASES

Case 1. (Fig. 1, Case 8441). Age 35. This patient had bleeding from the nipple for three months. The breast was explored and this was later followed by radical mastectomy. The ducts contained deeply pyknotic cells in a papillary arrangement, and red cells were visible in the lumen. Other ducts were filled solidly. This is the simplest type of papilloma and is clearly a neoplastic overgrowth. It goes beyond the simple hyperplasia excited by hormones but it can regress and disappear. There has been no recurrence in this case after two years.

Case 2. (Fig. 2, Case 6299). Age 35. Three years before admission this woman had an abscess of the right breast and two years later there was bleeding. In June 1939 the breast was explored and a frozen section showed mild cystic disease only, but routine sections showed what was thought to be a microscopic area of carcinoma. The photomicrograph resembles that of a merely sclerotic lobule, but by focusing one gains an impression of epithelial growth activity exciting a fibroblastic resistance. A radical mastectomy was performed, and the remainder of the breast showed only post-operative changes. There is no recurrence after five years.

Case 3. (Fig. 3, Case 73). Age 30. This patient was first seen in 1928 with a history of painful breast. She was observed by her family physician and there was no change until 1938, when she came with the report that five days previously she had discovered a lump. The lump was preceded by premenstrual discomfort. The local area was excised and contained a cyst 18 mm. in diameter and a solid mass 15 mm. in diameter, the latter from which the illustrative section was cut. There is an epithelial hyperplasia which appears to be confined to the ducts, though involving ducts of all sizes. An immediate radical mastectomy was performed and the patient is well and free from recurrence after ten years.

Case 4. (Fig. 4, Case 1614). Age 19. An aunt, an aunt, and a cousin of this young woman had died of cancer, though none from mammary cancer. She was observed for ten years with a discrete area of soreness and induration in the right breast, associated with menstrual irregularity. Pregnancy and lactation had no effect. Finally the lump was excised in 1942. It showed much intraductal papillomatous growth and, in consideration of the family history, a radical mastectomy was decided upon. The remainder of the breast showed similar but less advanced changes. The sections used are from this breast, the lower power showing cystic disease of Schimmelbusch's type, with an area of active intralobular growth which is also shown at higher magnification. Six months later the left breast also began to show soreness and induration. It was observed for over a year, then a simple mastectomy was performed. There was some papillary hyperplasia but less than in the other breast. This second operation is too recent for evaluation.

Case 5. (Fig. 5, Case 2778). Age 55. In December 1933 this patient noticed a lump in the right breast and slight bleeding from the nipple. Six weeks later a partial mastectomy was performed. The ducts were found to be filled with epithelial overgrowth. At a few points there appeared to be an infiltrative type of growth in small nests resembling intralobular ducts. It was thought that this was probably early malignancy and radical resection was advised, but patient refused. Eight years later a lump was again noticed near the scar. Radical mastectomy was performed. The microscopic picture is almost exactly the same as eight years before, with some borderline intralobular hyper-

plasia. There has been no evidence of recurrence after two years.

Case 6. (Fig. 6, Case 2673). Age 34. A definite lump in the right breast was first noticed by the patient nine months before admission. A series of pre-operative x-ray treatments was followed in a month by radical mastectomy. There is much hyalinization of the interstitial and intralobular fibrous tissues. Vacuolization is noted in the intralobular epithelium and in addition its pattern is disturbed and there is definite hyperplasia. There was a difference of opinion by numerous pathologists as to the benign and malignant appearance of the section. Four years after the right mastectomy a lump appeared in the left breast. The tumor area was excised and showed hyperplasia of duct epithelium and an apparently infiltrative growth. Evidence of estrogen and progesterone stimulation was marked. This breast was treated with irradiation therapy and the ovaries were irradiated. No local recurrence occurred on either side, but the patient died two years later of metastases.

Of the 41 borderline cases of early carcinoma, 30 had radical mastectomy because the microscopic appearance indicated invasive characteristics. One of these died of metastasis. Seven of the patients had local excision or simple mastectomy, and all of these are living. The remaining 4 received irradiation therapy; three of these are dead.

From this group of cases it is noted that the diagnosis was extremely difficult, and proper treatment depended upon careful evaluation of the histologic appearance and selection of therapy in each particular case, for in some instances a local excision of the tumor or a simple mastectomy would suffice, whereas in other cases a radical mastectomy was necessary.

Foote and Stewart² made a close statistical study of a number of histologic alterations that are commonly observed in cystic disease of the breast in a series of cancerous and noncancerous breasts. They stated that the true component parts of chronic cystic mastitis should include: (1) cyst, (2) duct papillomatosis, (3) blunt duct adenosis, (4) apocrine epithelium, (5) sclerosing adenosis, and perhaps a sixth; namely a primary lobule alteration. Fibroadenoma was excluded. The authors concluded that the statistical and morphological studies indicated that chronic cystic mastitis did play a role in the development of human breast cancer. They also concluded that duct ade-

nosis appears to be a common precursor to cyst formation. It was also observed that breasts with cancer are about 5 times as apt to show papillomatosis, which is cytologically atypical. It appears that the breast presents a variety of histologic interpretations, some of which are relative to the development of cancer.

Like in those of Foote and Stewart, it appeared in our series that chronic cystic mastitis plays a role in the development of mammary cancer, since frequently in those cases with definite frank advanced carcinoma, chronic cystic mastitis was associated in many instances. Likewise in those of the borderline type chronic cystic disease was also a frequent occurrence. Just why this hyperplastic condition which develops in the breast cannot be controlled in certain individuals and become cytologically atypical, is unknown.

It is suggested that the development of cancer is slowly progressive, and that there is an early stage in which infiltrative growth or active hyperplasia either recedes or is localized, that even local excision may cure it, or if the stimulating factor, whatever it may be, is removed then the hyperplasia or the infiltrative growth in its very early stages may show recession. We believe that most cancers of the breast arise in such areas of active growth.

The best time for biopsy or excision of the tumor is the first week of the menstrual cycle when the histologic interpretation is less confusing. Any epithelial activity beyond that commonly seen in the so-called cystic disease and other changes as mentioned previously, such as adenosis, or mastitis, apocrine epithelium, etc. would seem to justify more active therapeutic procedure, i. e., excision and thorough evaluation of the specimen before reaching any decision as to whether a simple or radical procedure would be performed. The precancerous

changes found in one part of the breast may well occur also in other areas, and possibly may be more advanced, such as papillomatosis. Thus, a finding of this type in our material has usually been followed by radical mastectomy. Simple mastectomy should be thought of only in the early stages when there is no definite infiltrative growth. If there is evidence of invasion then a radical procedure should be performed.

There is a growing body of evidence that cyclic changes in the breast associated with the menstrual cycle, like mastodynia, etc., are beneficially treated by administration of testosterone propionate during the secretory phase of the menstrual cycle.

Summary

A patient with an indefinite area of tenderness or soreness in the breast should be thoroughly examined and the findings recorded. Repeated examinations of two-week intervals may be necessary for comparison. Changes in the breast associated with the menstrual cycle are most important. In certain instances, the areas of induration or tenderness will be most pronounced during the premenstrual phase, with a complete subsidence during or after menses. It is the area of induration and soreness that is persistent after the menses that gives great concern. This signifies failure to regress and that there is now evidence of hyperplastic change. Thus, the patient should be examined during various phases of the cycle, and followed through at specific return dates. Only by careful follow-up will we be able to evaluate the individual breast problem. Patients about whom there is an element of doubt as to the presence of a neoplastic process should be submitted to surgical excision, with microscopic study of the excised specimen.

There are other primary diagnostic aids which may prove beneficial, such as cytologic films of secretion or blood from the

breast, transillumination, aspiration, and aspiration biopsy.

Carcinoma of the breast apparently develops as a result of altered normal physiologic activity with a series of histologic changes. There are certain proliferative and hyperplastic changes which occur, and in some instances are representative of a step between a benign and a malignant process.

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BLEEDING DUODENAL POLYP

Report of Case

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Polypoid adenomas arising from the glands of Brunner are rare and are seen infrequently in one's practice. Many reports of the study of small intestinal tumors have been made but few report polypoid adenomas arising from Brunner's glands. Bockus states that of the number of the adenomas of the duodenum, one-half arise from these glands, but most of them are sessile rather than pedunculated. Raiford, in his extensive review of the literature dealing with small intestinal tumors, found two adenomas of the duodenum, but does not state whether they were sessile or pedunculated. However, he does state that they comprise the largest group which are classified as polyps. Rankin and Newell reported two adenomas in the series at Mayo Clinic but did not make any reference as to type. Golden reports five adenomas having their origin in the glands of Brunner, one of which was pedunculated. Willis and Lasser-

sohn report one weighing twelve grams and pedunculated. In the most recent reports of small intestinal tumors by Cattell and Colcock, of Lahey's Clinic, and Weinberger and Palstauf, of New York, this type of tumor is not mentioned. Boyd's Pathology states that while gastric polyposis is often seen, duodenal polyposis does not occur. Cassidy and Macchia report a case with eight polyps of the duodenum.

Histologically, these tumors arise from the first inch or inch and one-half of the duodenum and are made up of the cells characteristic of the tissue from which they arise. The cell arrangement at the periphery may be somewhat disorderly. The fibrous stalk, or stem, of the polyp arises from the connective tissue and extends up into the tumor mass and divides into lobules.

The general symptoms of polyps of the duodenum may be vague, with epigastric pain and discomfort, nausea, vomiting, or "indigestion." If ulceration takes place in the mucosa of the polyp, duodenal ulcer symptoms predominate. If the ulcer involves vessels in its erosion, serious hemorrhage with resulting melena and anemia may be present. Obstruction may become a complication, but as the duodenum is more or less fixed this is rare, and is accomplished only when the tumor itself is large enough to obstruct the lumen of the duodenum. However, Kellogg reported a case of intussusception as a result of a Brunner's gland adenoma. Of all the symptoms of this condition, hemorrhage is probably the one most often giving a lead to the diagnosis. X-ray study is our one means of making a conclusive diagnosis previous to surgery.

Due to the rarity of this condition, it is felt that the following case report should be added to the literature.

REPORT OF CASE

Mrs. E. F. K., a 41-year-old white housewife, was seen for diagnosis and treatment (McC. J.) on September 26, 1946. Her chief complaint was constipation. It

is interesting to note that this complaint was misleading, and proved to have no bearing on the subject of this report. Questioning brought out the fact that she had experienced epigastric pain all of her life whenever worried or frightened. It was never caused by eating. It was associated with burning and sourness, though she added this last term later. She listed the constipation as her chief complaint because she was afraid of rectal cancer. Dull aching in the lower part of the rectum added to this fear.

Past history was essentially non-contributory, including an appendectomy in 1935, a tonsillectomy in 1935, and a hysterectomy in 1945. Following this last operation there were occasional "spells of depression," hot flashes, weakness, and some insomnia.

Physical examination was essentially normal. Digital and sigmoidoscopic examinations showed nothing abnormal in the rectum except a tight, spastic anal sphincter. She weighed 140 pounds at the time of her first examination, and reported her usual weight as 133 pounds.

Gastric analysis showed free HCl 56, total acidity 74, and mucus 3-plus. Urinalysis was normal. Stool specimen was normal. Blood count and blood Kahn were normal.

Fluoroscopic study of the chest showed nothing abnormal. The stomach was found in normal position. The duodenal cap filled and emptied well but visualization was only fair. There was no tenderness. A serial film showed a narrow prepyloric area without defects. The duodenal cap showed a radiolucent defect near the apex. There was also an irregular outline in the left base of the cap, suggestive of an ulcer crater on one exposure. The stomach was almost empty in 2½ hours. The head of the meal had not reached the cecum. The outline of the duodenal cap was similar to that already described. The small intestine pattern was normal.

The colon study at 24 hours showed an extreme degree of spasm throughout. Filling alternated between fusiform segments and complete obliteration. There was no tenderness anywhere.

The x-ray diagnoses from these findings were:

1. Pyloro-duodenal irritation with possible ulcer.
2. Probable duodenal polyp.
3. Normal motility.
4. Extreme colitis.

The patient was placed on a soft diet, given anti-spasmodics, malecogel, and zymenol. Arrangements were made for an x-ray check-up in four weeks.

At this time, November 1, 1946, she reported complete relief of all symptoms except constipation. The duodenal findings were the same as before. X-ray diagnosis at the time of this four week study: "All findings strongly favor duodenal polyp."

The next x-ray check-up was on January 30, 1947. The findings were the same, and surgical consultation (W.S.D.) was requested. From that time on her progress was followed by internist and surgeon together.

Subsequent x-ray studies were made on March 20, 1947, October 6, 1947, and August 11, 1948. The diagnosis of duodenal polyposis was considered definitely established shortly after the beginning of observation, but conservative treatment seemed to be justified because her symptoms were relieved and she continued to gain weight.

On examination of August 11, 1948, a new development appeared. This was extreme motility, with the head of the meal in the sigmoid colon at 3 hours. This was a new finding, but whether it had any connection with the subsequent course is not known. About this time the patient began to complain of vague discomfort, though she made no particular reference to the epigastrium. In November, 1948, she began to experience nausea and discomfort, and blood

was noticed in the stools. In view of these developments we felt that surgical intervention was definitely in order, and operation was arranged accordingly.

She was admitted to the hospital on December 2, 1948, at which time she complained of "sour stomach and a dull ache in the upper abdomen together with tiredness." The blood count on this date was: R.B.C. 3,580,000, W.B.C. 6,250, Hb. 70 per cent; blood chlorides 542 and serum protein 7.8. She was in good general condition and with necessary preparatory measures, she was operated upon on December 4, 1948. Upon opening and inspection of the abdomen, it was found she had a partial small intestinal obstruction due to adhesions from former operation. These were released and the stomach was found to have a thickened wall on the lesser curvature near the pylorus. On palpating the first portion of the duodenum, there was also a feeling of thickening in the posterior wall, but no polyp was felt. On palpating the second portion of the duodenum, the polyp was propelled up to the pylorus. Due to the history and findings, a partial gastrectomy (Hoffmeister) was performed, with removal of approximately two inches of the duodenum together with the polyp.

Examination of the specimen showed the mucous membrane of the prepyloric area to have prominent rugae and a few small erosions along the lesser curvature. On the superior portion of the posterior wall of the duodenum about 3 cm. from the pylorus a pedunculated tumor 6 cm. was seen. It was lobulated and dull reddish in color. The body of the tumor measured 2.2 cm. by 3.2 cm. The pedicle was 2.8 cm. long and 0.9 cm. thick. Near the base of the polyp (body), and ulceration 2.5 mm. in diameter was seen with a small clot in the crater. Tissue examination showed the following: "The sections are lobulated, the lobules are composed of numerous acini. The cells are large finely granular cells lining the acini, the cytoplasm is fairly abundant, but the nuclei are small and placed at the base of the cells. The interacinarous framework is not abundant but is fairly loosely woven. The interlobular framework is not abundant but is fairly compact. The cells and the lobules are characteristic of the adenoma arising from the glands of Brunner." The diagnosis was made as "Pedunculated adenoma, which shows circumscribed ulcerations, having its origin in the glands of Brunner."

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HEALTHGRAMS

We are well aware of the penalties of delay in diagnosing tuberculosis. Undiscovered, the disease progresses, often to the point of hopeless intractability; unchecked, it spreads freely; and unrecognized, it breeds new cases. If we are to succeed in controlling tuberculosis, this is exactly what must not continue to occur. Francis J. Weber, M.D., Pub. Health Rep., Oct. 1, 1948.

* * *

Estimation of the therapeutic effect of any drug on such a disease as human tuberculosis is extremely difficult. This is especially true in view of the chronicity of most forms of the disease and the known favorable response of the disease to proper diet, collapse therapy and rest in the absence of any treatment with drugs. Archie H. Baggenstoss, M.D., William H. Feldman, D.V.M., and H. Corwin Hinshaw, M.D., Am. Rev. Tuberc., Jan., 1947.

TRANSVERSE ABDOMINAL INCISIONS

Analysis of 1,000 Consecutive Cases

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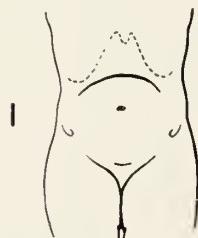
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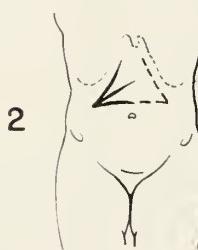
Within the past decade there has been a trend toward a wider, more extensive attack on many abdominal diseases. Obviously the increased magnitude of abdominal operations has necessitated the use of incisions

pose general abdominal section, an attempt has been made to evaluate the use of this incision in all types of abdominal surgery, elective and emergency.

Many of the advantages claimed for this approach were readily apparent from the first; however, a careful evaluation has required utilization of the incision in a large number of operations for all types of abdominal conditions. The purpose of this paper is to report 1,000 consecutive operations in which this incision was used, and to offer a critical analysis of its advantages and its complications. As a result of this study, the use of the transverse incision has



	Number	Disruption	Emergency
Subtotal gastrectomy	100	0	10
Subtotal pancreatectomy	1	0	
Pancreaticoduodenectomy	1	0	
Gastroenterostomy	1	0	
Gunshot wound	3	2	3
Spleno-renal vein anastomosis	1	0	
Repair hiatus hernia	1	0	
Infradiaphragmatic vagotomy	4	0	
Exploratory celiotomy	13	0	9
	<u>125</u>	<u>2</u>	<u>22</u>



Cholecystectomy	132	0	30
Cholecystostomy	15	0	15
Splenectomy	15	0	0
Exploratory celiotomy	19	0	10
Incision, drainage subphrenic abscess	13	0	13
	<u>194</u>	<u>0</u>	<u>68</u>

which will provide maximum exposure without violating anatomic principles. Since the transverse incision appeared to lend itself well to this need and for an all-pur-

pose general abdominal section, an attempt has been made to evaluate the use of this incision in all types of abdominal surgery, elective and emergency.

Transverse abdominal incisions are by no means new, as evidenced by reports in the literature dating as far back as 1823.¹ At the turn of this century the incision had

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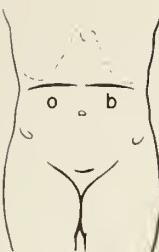
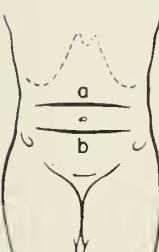
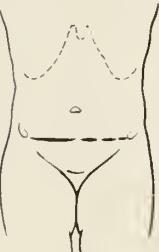
		Number	Disruption	Emergency
3				
	Exploratory celiotomy	4	0	2
	Pyloroplasty (Ramstedt)	10	0	
	Repair perforated ulcer	50	1	50
	Transverse colostomy	35	0	30
	Intestinal obstruction	1	0	1
	Gastrostomy	15	0	10
		115	1	93
4				
	Partial colectomy	18	0	
	Gunshot wounds	60	2	60
	Traumatic abdomen	38	1	38
	Intestinal obstruction	70	2	70
	Repair ventral hernia	14	0	7
	Exploratory celiotomy	33	1	30
	Reduction intussusception	5	0	5
	Ureterosigmoidostomy	2	0	
		240	6	210
5				
	Appendectomy	250	0	240
	Cecostomy	3	0	3
	Solpingo-oophorectomy	5	0	1
	Exploration	1		
		259		244
6				
	Total hysterectomy	33	0	
	Abdominoperineal resection	17	0	
	Colectomy (sigmoid)	4	0	
	Exploratory celiotomy	13	0	10
		67		10

Table 1. Analysis of six transverse abdominal incisions used in 1,000 consecutive operations.

gained some popularity among European surgeons. In America it was Moschowitz,² in 1916, who first called attention to the

sound anatomic, and physiologic principles underlying the transverse approach to the abdomen. Subsequently Sloan³, Rees and

Coller⁴, Gurd⁵, and Singleton⁶, Burch⁷ and others advocated transverse incisions and have discussed at length their advantages over the vertical incision. Sloan⁸ demonstrated actual strain coefficients on the suture lines of vertical incisions and showed the stress on the vertical wound to be proportional to the square of its length. It follows that a geometric increase in the force exerted upon the vertical wound occurs as the wound is lengthened. This force exerted on the wound represents the combined power of the transversus abdominis and the oblique abdominal muscles. Sloan⁸ noted that transection of the rectus abdominis muscles did not produce geometric increases in the forces acting on the transverse incision and that lengthening the incision laterally played a minor if not a negligible role in adding additional stress on the sutured wound. The facility of entering the abdomen, the acquisition of wide exposure without sustained retraction, and the ease of closure are desirable factors noted with this incision.

Technic

The technic of making and closing a transverse abdominal incision is not difficult, nor is it time-consuming. Initially the incision is made through the skin and superficial fascia down to the anterior rectus sheath and the fascia of the external oblique muscle. The anterior rectus sheath is then cut transversely and the rectus muscle divided by one of several methods. It may be divided between clamps, but preferably it is incised with a scalpel and bleeding points clamped as they are encountered. In the lower abdomen it is advantageous to identify the inferior epigastric vessels and secure them before the rectus muscle is completely divided. These vessels are usually located without difficulty, running deep to the muscle in a superior and medial direction. After these vessels are ligated it is seldom that troublesome bleeders will be encountered as transection of the rectus muscle is completed. The incision may then be extended laterally by separation of the fibers of the lateral muscles by sharp dissection.

ANALYSIS OF WOUND DISRUPTIONS

INCISION	DIAGNOSIS	OPERATION	COMPLICATIONS AND CONTRIBUTORY FACTORS	TIME OF DISRUPTION	OUTCOME
1	GUN SHOT WOUND	RT.COLECTOMY JEJUNECTOMY COLOSTOMY	PERITONITIS WOUND INFECTION UREMIA ATELECTASIS	12TH DAY	DEATH
1	GUN SHOT WOUND	RESECTION JEJUNUM RESECTION ILEUM COLOSTOMY	PERITONITIS MASSIVE WOUND INFECTION RETROPERITONEAL HEMORRHAGE MEDIASTINITIS PNEUMONITIS UREMIA	8TH DAY	RECOVERY
4	STAB ABDOMEN STAB CHEST	EXPLORATORY CELIOTOMY (NO VISCERAL INJURY)	UNTIED COTTON SUTURES HEMOTHORAX	10TH DAY	RECOVERY

ANALYSIS OF WOUND DISRUPTIONS

INCISION	DIAGNOSIS	OPERATION	COMPLICATIONS AND CONTRIBUTORY FACTORS	TIME OF DISRUPTION	OUTCOME
3	PERFORATED PEPTIC ULCER (36 HRS.)	GASTRORRHAPHY	PERITONITIS MALNUTRITION SENIILITY ATELECTASIS	7TH DAY	RECOVERY
4	a. 1ST OPERATION PERFORATED JEJUNAL ULCER	CLOSURE ULCER	PERITONITIS WOUND INFECTION UREMIA	8TH DAY	RECOVERY
b. 2ND OPERATION INTESTINAL OBSTRUCTION	RESECTION OF JEJUNUM		PERITONITIS WOUND INFECTION UREMIA PNEUMONITIS	7TH DAY	DEATH
4	MESENTERIC CYST WITH OBSTRUCTION	RESECTION OF ILEUM & CYST	PERITONITIS MASSIVE WOUND INFECTION PANOPHTHALMITIS	6TH DAY	RECOVERY
4	GUN SHOT WOUND	RESECTION OF SEGMENTS ILEUM COLOSTOMY	PERITONITIS INTESTINAL OBSTRUCTION MASSIVE WOUND INFECTION PNEUMONITIS	7TH DAY	RECOVERY

Table 2. Analysis of wound disruptions. The last case described illustrates two cases which were almost identical.

Branches of the lower intercostal nerves are identified and protected when possible. However, no significant motor or sensory damage results when one or two branches are sacrificed. The eurvilinar incisions offer no additional problems.

Closure of the wound is made easier by flexing the patient's trunk on the operating table. It is noted that under such circumstances the wound edges practically fall together and may be readily sutured without tension. The peritoneum is closed with interrupted cotton or silk sutures. It is thought

that this type of closure allows rapid healing with minimal tissue reaction around suture line. No sutures are taken in the cut ends of the rectus muscle. Satisfactory healing takes place if the rectus sheaths are accurately closed. The fascia of the lateral muscles is united by means of a few interrupted sutures.

Presentation of Data

This series includes 1,000 consecutive cases of abdominal surgery in which transverse incisions of various types were utilized. (Table I). Approximately 65 per

cent of these operations were emergency procedures, performed either for traumatic or other acute abdominal conditions. A considerable number of these patients had received gunshot wounds, stab wounds or crush injuries of the abdomen, and many had associated thoracic injuries. The placement of the incision varied with the region of the abdomen involved, but in many cases it served as a general exploratory incision.

There were 9 wound disruptions (Table 2). In a previous series of 2,206 celiotomies in this hospital in which the vertical incision was utilized, there were 23 incidences of wound dehiscence (1.04 per cent).⁸ It is acknowledged that the difference in the percentage of wound dehiscence in these two series is not great enough to be of much significance. Although follow-up studies on both groups are too incomplete for accurate statistical study, an impression is gained that the incidence of wound hernia is much lower in the transverse group.

Discussion

All the cases were admissions to the municipal charity hospital, with a resultant cross-section of low income groups. Many of the patients had clinical or sub-clinical manifestations of malnutrition, avitaminosis and other constitutional diseases. Many presented advanced malignant disease. The time interval between trauma or the onset of disease and admission to the hospital was frequently prolonged. Acute alcoholism was present in many of the traumatic cases. Peritonitis had become established, or gross peritoneal contamination had occurred in many prior to hospital admission. Some cases required operation without benefit of prolonged preoperative preparation. Under such circumstances an increased incidence of wound complications is expected. This is borne out by the fact that all incidences of dehiscence in this series occurred in those patients operated upon as emergen-

cies.

The use of the transverse incision generally facilitates the operative procedure. The exposure gained through an adequately developed transverse incision is more extensive than through vertical incisions of equal length. The force required for retraction is minimal and in many instances no retractors are needed. Not only is access easily afforded to upper and lower regions of the abdominal cavity, but lateral extension of the incision in this series was made with interrupted sutures of non-absorbent material. The use of silk or cotton sutures is recommended for abdominal closures even in the presence of gross contamination.

From a cosmetic standpoint transverse incisions heal well and show little tendency towards spreading of the scar as with vertical incisions. The transverse approach follows the skin lines of Langer and does not cross the normal lines of stress in the skin. Post-operatively there is a minimum of wound pain and less sedation is required. For this reason the patient is more active and coughs freely, hence a lowered incidence of pulmonary complications was noted in these cases. Early ambulation is the policy of the surgical service in this hospital. It is apparent that the transverse incision has allowed the patient to gain all the benefits of early ambulation with minimal discomfort and with a greater degree of safety.

Summary and Conclusion

The basic anatomic, physiologic and surgical principles underlying the transverse abdominal incision are reviewed briefly. The advantages offered by this approach with regard to exposure, minimum retraction, ease of closure and post-operative course are outlined. A series of 1,000 consecutive abdominal operations in which transverse incisions were used, is presented with an analysis of types of incisions used

and wound complications (disruptions). The indications for surgical intervention in 65 per cent of these cases were trauma or acute pathologic conditions of the abdomen. The incidence of wound disruptions in this series was 0.9 per cent.

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NOTE: The foregoing papers are a part of a surgical symposium. Discussion of them will follow completion of the publication of the symposium, in the January, 1950, number of THE JOURNAL.—Ed.

A NEW PRINCIPLE IN DOUCHING

ROBERT B. GREENBLATT, M.D.

and

NELSON H. BROWN, B.S.

Augusta

Fastidious women, ever since the dawn of our civilization, impulsively and instinctively reasoned that vaginal cleansing from time to time was a necessity and essential to feminine daintiness.

Oblique reference to vaginal bathing is made in the earliest recorded writings. The Egyptian papri, Hebrew Bible, Greek and Roman works have referred to vaginal and labial irrigation. However, direct douching by mechanical or instrumental means seems to have been unknown until the 19th century. Charles Knowlton¹ is his *Fruits of Philosophy* (1831-32) first mentions the douche. One may suspect that others before

Knowlton mentioned douching, but if such is the case search of the literature fails to reveal it.

Knowlton's chief interest in his *Fruits of Philosophy* was contraceptive techniques, but his chief method was douching. Solutions of alum and of astringents such as white oak bark, hemlock bark, red rose leaves, green tea, raspberry leaves or roots were recommended. When leukorrhea was present a solution of zinc sulfate was advised. When relaxation was present a combination of zinc and alum he thought most suitable. When there was tenderness of the parts, a solution of sugar of lead was employed. "Perhaps as a general thing", Knowlton said, "a solution of saleratus (sodium bicarbonate) is the best and most convenient to use."

Deweese² in his book, "A Treatise on Diseases of Females" (1837), shows an illustration of the syringe (Figure 1). That it was used for irrigation of the vagina with medicinal agents for the treatment of leukorrhea may be inferred from the following passage: "During the treatment of leukorrhea, too little attention is commonly paid to cleanliness; if this necessary act be neglected as reprehensibly as it generally is, very little good will be derived from the prosecution of the best plan of cure. On this account we importunately urge the compliance with the direction, of frequent washings with warm water, as well as the cleansing of the vagina, *by throwing up it several syringes-full of warm soap suds*; especially before the injections, intended immediately for the complaint, are administered. By this plan, two important objects are gained; first, the matter occupying the vagina is removed, frequently; and there is prevented all the injuries that might arise from its stagnation; secondly, the surface of the vagina is deterged by this means, and the medicated injunctions have full opportunity

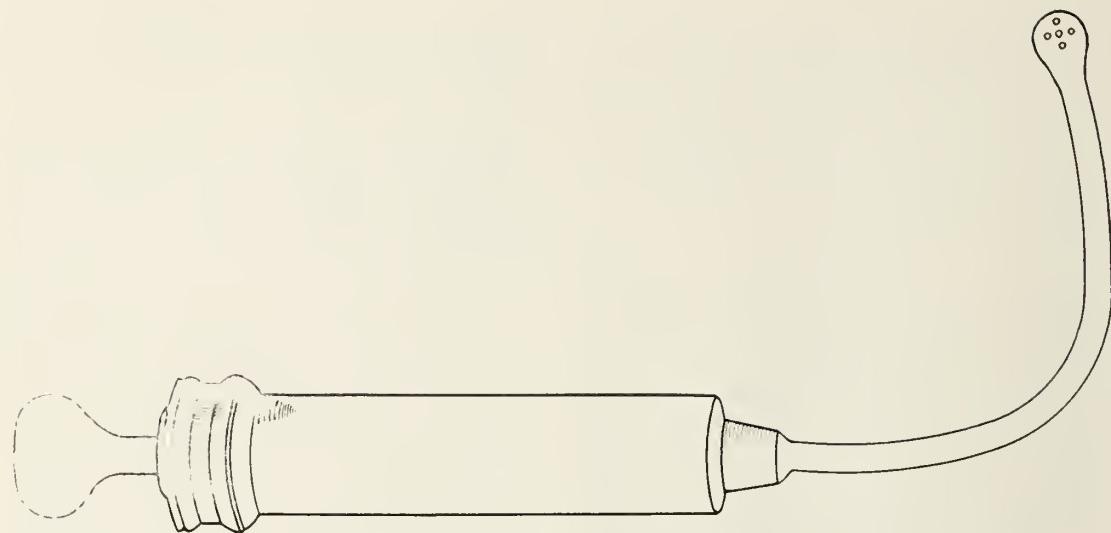


Figure 1. Drawing of female syringe illustrated in Dewees' Treatise of Diseases of Females, 1837.

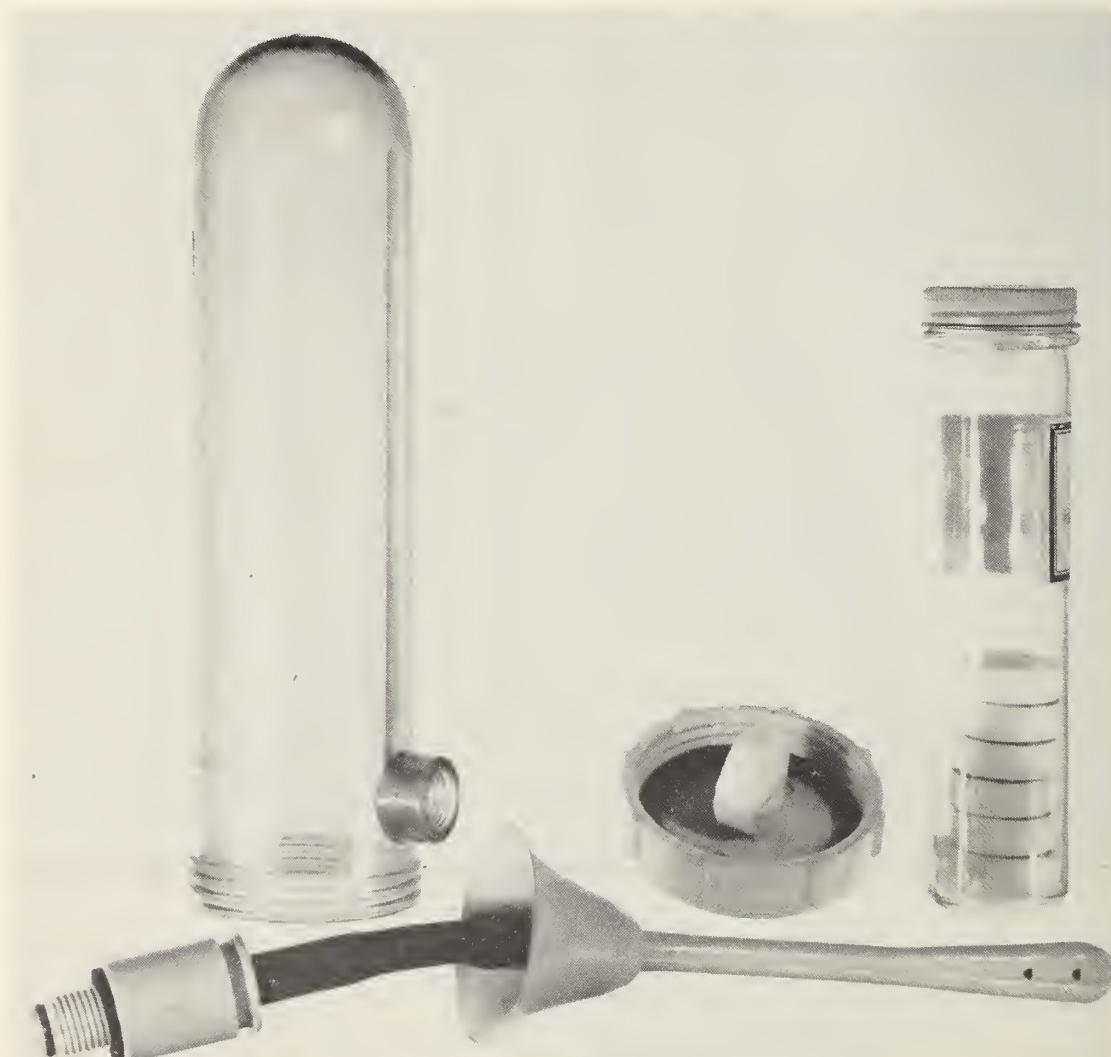


Figure 2. New douche unit showing cylinder, cap with effervescent tablet in place, douche nozzle, and bottle containing effervescent tablet.

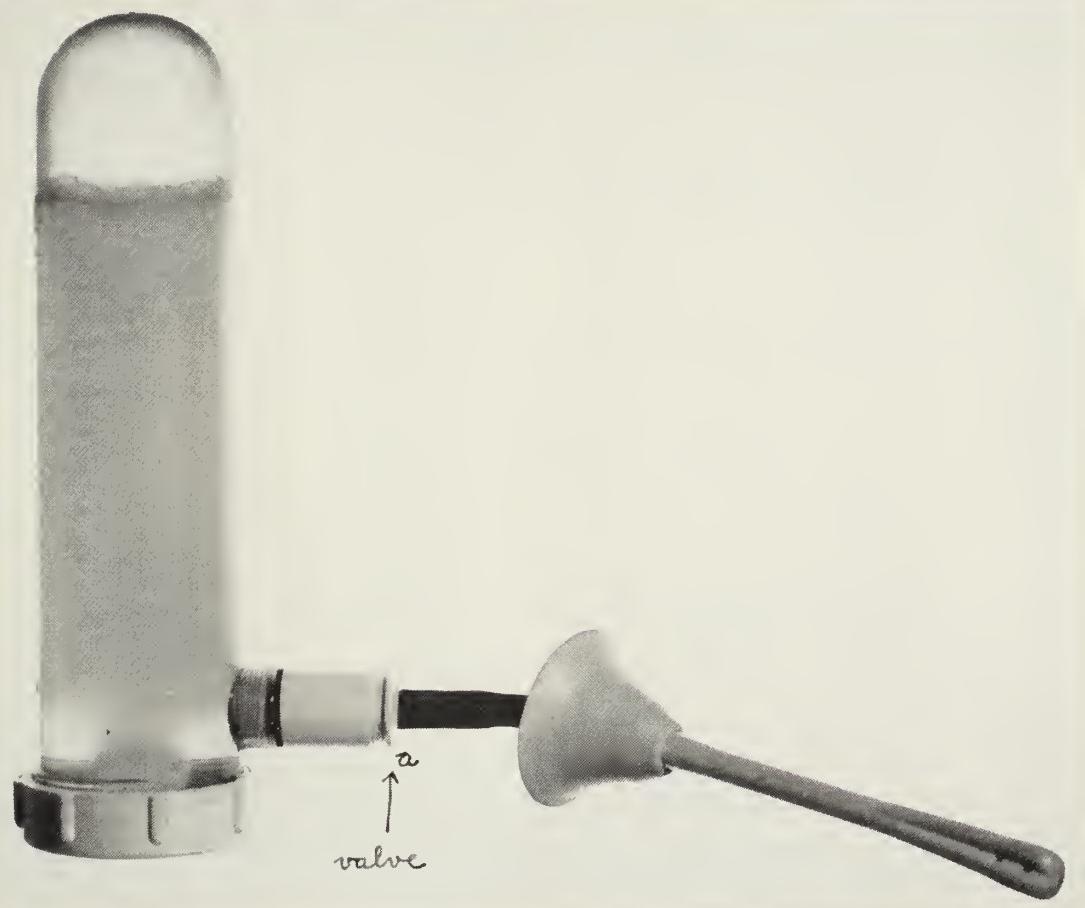


Figure 3. Unit assembled and ready for use (insertion of nozzle into vagina). Release of fluid is obtained by pressing the valve (a) toward cylinder.

to exert their influence upon the inflamed surface that furnishes the discharge."

Refinements and improvements followed the development of the syringe for douching purposes. The large bulb syringe holding several hundred centimeters of water or medicated aqueous solutions were compelled into the vaginal canal by pressure. This pressure douche was in vogue during the first quarter of this century and is still used today. Then the gravity douche became more popular. A douche bag or can containing amounts of water varying from one quart to one gallon was suspended above the level of the body so that the cleansing fluid ran into the vagina purely by gravity. The rate of flow and the pressure could be regulated by the size of the douche nozzle and the height at which the bag or can was

suspended. If hung on the chandeliers, the pressure of the column of water was great indeed.

Antiseptics of all descriptions were added to the water for douching purposes. Some of these antiseptics have proved harmful, setting up traumatic or chemical vaginitis. For instance, Lysol burns of the vagina obtained through the too generous use of this strong antiseptic have been frequently encountered. Today the physician tries to avoid strong antiseptics and instead orders mild acid or mild alkaline douches. The former are represented by lactic acid, vinegar (acetic acid) and boric acid; the latter by sodium bicarbonate.

For simple cleansing purposes of the vaginal canal it is best to use solutions that complement the normal reaction of the vag-

inal secretions. A review of our knowledge concerning the pH reaction of the vaginal secretions is therefore in order³.

The secretions present in the vaginal canal are, for the greater part, composed of desquamated epithelial cells, cellular debris and a rich bacterial flora. Normally the reaction (pH) of the vaginal secretions is acid and is the result of the break down into lactic acid of the glycogen stored in the epithelium.

Many factors are capable of influencing the pH of vaginal secretions, such as the amount of glycogen stored in the cells, the changes in bacterial flora caused by infections and contaminants, the mucoid alkaline secretions from the cervix and the presence of varying numbers of leukocytes and red blood cells.

Shifts from the normally acid pH occur in the presence of acute vaginal infections and when there is a marked depletion of the glycogen storage in the vaginal mucosa. Glycogen deposition is in direct proportion to the amount of estrogen circulating in the body. Decrease in glycogen storage occurs with decrease in estrogen production. With diminished glycogen breakdown, the vaginal flora changes and lactic acid formation is decreased, resulting in a shift from acidity toward alkalinity.

It appears that certain organisms and contaminants thrive in the secretions of a pH most favorable to their growth. Thus, Doderlein's bacilli are found only in a normally acid secretion. *Monilia albicans* is most frequently found when the secretion is acid but may exist in secretions of any pH. Reaction in acute trichomonad infestation will be found shifted toward alkalinity. In mixed infections such as those caused by staphylococci, streptococci and *B. coli*, the pH varies from 5.5 to 7.5. In acute gonorrhreal infection the vaginal pH may be well on the alkaline side.

To determine roughly the pH of vaginal

secretions nitrazine paper may be used. The paper is held by thumb forceps and inserted into the outer third of the vagina, then gently rubbed across the vaginal surfaces. The moistened paper is withdrawn and after 30 to 60 seconds the color is compared to the values in a chart proposed by Clark and Lubs (U.S.P. XIII, pp. 849-885) based on buffered solutions with sharply defined pH values. Nitrazine paper provides a convenient and moderately accurate means for determination of the pH of vaginal secretions in the range of 4.5 to 7.5. The color scale is interpreted as follows: yellow, pH 4.5; yellow-brown, pH 5; yellow-green, pH 6; green, pH 7; blue pH 7.5.

It would appear then that douche solutions with a pH toward acidity are to be preferred.

Principles governing the douche should take into consideration the volume of water to be used, the pH of the solution, and the pressure under which the solution is propelled into the vaginal canal. Recently a new douche unit which takes the above facts into consideration has been developed. An effervescent tablet (containing citric acid, 33 per cent; sodium bicarbonate, 42 per cent; boric acid, 5 per cent; sodium chloride, 16 per cent; and calcium gluconate, 4 per cent) is placed into a special groove on the immerside of the cap of a transparent plastic cylinder to which 310 cc. of warm water has been added (Figure 2). When the cap is screwed back into place to close the cylinder, the effervescent tablet dissolves within one or two minutes giving off enough carbon dioxide to produce a head pressure of 35 pounds. On releasing the valve (Figure 3) (by pressing it toward the cylinder), jets of solution are released and the maximal outlet pressure is 1.4 pounds. The employment of such a unit assures a cleansing vaginal douche that will not interfere with the normal pH reaction of the vaginal secretions and under a satisfactory but

harmless degree of pressure. The convenience of this douche unit under all conditions of home and travel commends it most highly. The principle of an effervescent tablet of known properties producing sufficient pressure in a closed cylinder to propel

a stream of solution into the vaginal canal is indeed revolutionary.

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PRESIDENT'S PAGE

THE THREAT CONTINUES

We must not assume an attitude of security based on statements made by the advocates of socialized medicine that no effort would be made to pass such legislation at the next meeting of Congress. We must not be misled into thinking that we have temporarily discouraged them from further efforts along this line. When Congress meets S.5 or a reasonable facsimile will make its appearance again.

Socialization of medicine is considered by President Truman as being one of the high priority projects in his program, and in his speeches he continues to urge this as an essential part of his so-called "fair deal" platform. As long as this appears to be a good way to obtain votes by promising something for nothing politicians who think more of party supremacy than they do of National Welfare will continue to support it. These men do not care whether it is detrimental to the health of the people, the advance of medical science or to the economic structure of the Nation. They have only one thought and that is to remain on the public payroll. Only by educating the voters to be opposed to the socialization of

medicine, only by making it unprofitable as a vote-getting maneuver, can we hope to stop these men from giving it their support.

In addition to these low politicians there are others who definitely desire a welfare or socialistic state and who feel that the control of the medical profession is essential to the elimination of individual enterprise. These people are attempting to accomplish the same purpose in what is possibly a more dangerous manner. Their method is to gradually eliminate the private practice of medicine by persistent small encroachments. This is done by tacking on medical control clauses to appropriation bills. This method is particularly effective when these bills have originally been sponsored by the medical profession. This boring from within must be constantly watched and fought. This can only be done by our National Organization, which can only be maintained by our personal and financial support.

If we desire to keep the practice of medicine free from political control, we must support a strong public relations program on a County, State and National level.

ENOCH CALLAWAY, M.D.

THE JOURNAL
OF THE
MEDICAL ASSOCIATION OF GEORGIA

478 Peachtree Street, N. E., Atlanta, Ga.

DECEMBER, 1949

ROSTER OF THE ASSOCIATION

Elsewhere in this JOURNAL will be found the 1949 roster of the Medical Association of Georgia. All members should examine the list and note if their names have been spelled correctly and if the addresses are correct. Errors should be reported to the Secretary-Treasurer, Dr. Edgar Shanks, 478 Peachtree St., N. E., Atlanta.

Further examination of this number of THE JOURNAL will reveal a list of the names that make up the Woman's Auxiliary to the Association.

PUBLIC RELATIONS

More than 250 leaders of state medical societies from across the nation charged with the responsibility of conducting public relations programs to advance public understanding and health care met in Chicago, November 5 and 6. The occasion was the second annual Medical Relations Conference sponsored by the American Medical Association and attended by physicians chairmen of state medical society public relations committees, lay executive secretaries and public relations directors, and representatives of 20 allied national health organizations.

Dr. Ernest E. Irons of Chicago, president of the Association, told the conference that it was concerned not only with the question of medicine but with that of survival of the American way of life.

"That is why the medical profession must depart from its traditional aloofness from social and political activities," Dr. Irons said. "It must devote itself to the dangers of nationalized medicine and the social state. That is why we must accept a new kind of public relations."

Dr. Irons promised frankness with the press, adding: "We shall see that the press has information when it is timely."

Dr. Louis H. Bauer of Hempstead, N. Y., chairman of the A.M.A. Board of Trustees, told the conference that "it doesn't make so much difference what happens to the doctor under socialized medicine. More important is what is going to happen to the public."

The campaign for a paternal state has forced business and professional men into politics to protect their independence, according to Averell Broughton of New York, president of the Public Relations Society of America.

"The best answer to one pressure group, those of the left wing or New Deal, is another pressure group," Mr. Broughton said. "But while it is the army that moves, it is the individual who fights, and it is the many little local campaigns that win the big campaign."

He urged doctors to participate in the efforts to keep the profession from losing its independence through socialized medicine legislation.

The adoption of a code of cooperation by the medical profession and the press and radio in Colorado was detailed by Dr. McKinnie Phelps of Denver, chairman of the public policy committee, Colorado State Medical Society.

Out of meetings with the working press developed the Colorado Code of Cooperation, under which all the parties acknowledge certain responsibilities. Spokesmen for the medical profession were designated in every area and newspapers and radio stations were supplied names, addresses and telephone numbers.

"Officers, committee chairmen or designated spokesmen of the medical society may be quoted by name in matters of public interest, and often are," Dr. Phelps said. "Such statements by authorized spokesmen are not considered by their colleagues as a breach of time-honored practice of physicians to avoid personal publicity, since it is done in the best interests of the public and the profession."

"Essentially, news is neither suppressed nor censored. It is rather encouraged, but channeled through devices which see to it that the news is accurate."

Leonard E. Read of Irvington-on-the-Hudson, N. Y., president of the Foundation for Economic Education, and dinner speaker, warned of the spreading "coercive collectivism."

"When the state starts to assume a certain amount of our welfare it assumes certain authority over our lives," Mr. Read said.

He pointed to the collapse of governments in Europe when the "take" in taxes passed the 25 per cent figure. This has reached 29 per cent in the United States, he said.

Dr. Donald B. Koonce of Wilmington, N. C., chairman of the public relations committee of the Medical Society of the State of North Carolina, told of the rapid development of a public relations program in that state.

"President Truman deserves all the credit," Dr. Koonce said. "If it had not been for the imminent danger of compulsory health insurance it would have been physically and financially impossible to take the rapid steps in public relations we have."

The favorable results from the establishment

of a grievance committee by the Oklahoma State Medical Association was reported by Dr. George H. Garrison of Oklahoma City, president of the association.

Dr. Garrison explained that the primary objective of the committee is to see that the public interest is fairly and honestly served and to correct misunderstandings and abuses which the patients believe have occurred.

Following the announcement of the formation of the committee, which was hailed by the press in editorials and columns, many letters were received, he said, adding:

"Surprisingly enough, most of them were not complaints against the members of the profession but rather entreaties for help in obtaining medical care."

As a result, he said, a cooperative program was worked out with private and governmental welfare groups to meet the problem. He also said that every grievance had been satisfactorily adjusted.

Dr. J. H. A. Peck of St. Francis, Kansas, president of the Kansas Medical Society, detailed a program in that state aimed to provide doctors for rural areas. The program besides covering medical care provides for better schools, more scientific farming, the establishment of adequate libraries, attractive parks, effective chambers of commerce and the establishment of churches, businesses and homes.

"Our efforts are directed toward health, but we physicians also are cooperating with our rural communities in those other phases of this program," Dr. Peck said. The emphasis in getting a doctor to practice in a community is to stimulate the community to establish proper medical care facilities that will attract a doctor.

Dr. A. E. Cardle of Minneapolis, chairman of the health education committee of the Minnesota State Medical Association and chairman of the session on "State Society Public Relations Projects," cited the new concept in professional thinking.

"Five years ago, a conference like this would have produced many an unfavorable reaction," Dr. Cardle said. "Commercialism, we would have said. Lowering of ethical standards. Selling medicine like soap."

"We have an important message to give the public now and we cannot overlook the media by which we communicate this message. I do not mean that we should be hypocritical or servile in seeking the cooperation of press and radio. They would be the first to detect and expose any lack of sincerity on our part. But, we should deal with them fairly and honestly, giving out information that is reinforced with facts."

"Women's auxiliaries to medical associations are potent factors in the profession's public relations program, according to Dr. C. Allen

Payne of Grand Rapids, Mich., chairman of the advisory committee of the Woman's Auxiliary to the Michigan State Medical Society.

Dr. Percy E. Hopkins of Chicago, chairman of the committee on medical service and public relations, Illinois State Medical Society, told of a full-scale public relations program established in 1945. Dr. Hopkins pointed out, however, that the Illinois society has had a program for 26 years. He explained how the public relations committee works with other committees of the state society.

Rhode Island though small in area has an effective program, according to Dr. Charles L. Farrell of Pawtucket, R. I., chairman of the committee on public policy and relations of the Rhode Island Medical Society.

Other participants in the conference were Dr. George F. Lull, general manager and secretary of the A.M.A. who welcomed attendees and emphasized that the 48 states attendance was "a clear-cut indication that the medical profession is convinced of the urgent necessity for an over-all continuing long-range public relations program"; Dr. Max H. Hattaway of New Orleans, chairman of the council on medical service and public relations, Louisiana State Medical Society, and chairman of the session on "Organizing for an Overall Public Relations Program" and Dr. F. S. Winslow of Rochester, N. Y., chairman of the public relations committee, New York Medical Society, and chairman of the session on "Get It Off Your Chest."

The conference was directed by Lawrence W. Remer, public relations director of the A.M.A.

THE AMERICAN SOCIETY OF CLINICAL PATHOLOGISTS

In Chicago, October 11 to 15, the American Society of Clinical Pathologists held their usual yearly meeting. There were several hundred clinical pathologists from all parts of the Nation in attendance, and a few from foreign countries. Many very interesting problems of great significance were presented concerning recent advances in medicine which should be of interest to doctors in Georgia as well as elsewhere. Therefore, it would seem pertinent to briefly discuss some of the papers which were heard.

Drs. J. W. Berry and Hope Lowery described a new method for the culture detection of the tubercle bacillus which is very unusual and ingenious: Sputum is smeared on cleaned new glass slides, dried, placed in 6 per cent sulphuric acid for 20 minutes, washed in distilled water, and then transferred to jars containing Kirchner's solution, glycerol and asparigin to which has been added 0.5 per cent serum albumin. The slides are incubated for two days, four days and six days; then removed, fixed, stained and examined. Several hundred such smear cultures have been made, and growth appears in two days' time with a 100 per cent accuracy in the

findings after six day's incubation.

Drs. Harold Gordon and Nataro made frequent marrow studies in patients with pernicious anemia in relapse who were receiving B_{12} in order to see what changes occurred in some of the blood cells. Occasionally the therapeutic effect could be noted six hours after treatment had begun, and was progressive for 96 hours. As a rule megaloblasts became depleted, normoblasts were more numerous, myelopoiesis was stimulated. A single injection of 0.1 mg. caused prompt restitution of cells; and suboptimal responses were apparent two or five days after therapy, consisting of pykosis, incomplete karyorrhexis of micronormoblastic nuclei and the appearance of siderocytes. The reticulocyte response reached a peak in four to seven days. Miconormoblasts were encountered having bizarre nuclei with coarse chromatin clumps in them which resemble Howell-Jolly bodies. It was thought that if the clinical pathologist could recognize these changes with sufficient accuracy, he would better understand whether or not the dosage of B_{12} had been inadequate.

William B. Wartman and Souders reported the distribution of infarcts in 50 hearts. Infarcts were found in 11 per cent of atria, representing 29 per cent of those involved! They further found that they could classify infarction into types dependent upon the thickness of the musculature. Type I is a full thickness infarct with complete necrosis of the involved area. Type II is the massive lesion and includes a large amount of the muscle, but not the entire thickness of the muscular wall. Rupture occurs only in those hearts with full thickness types. Fifty per cent of the hearts had evidence of old infarction, and most of those were afflicted with new areas of involvement. They were particularly impressed with the fact that reinfarction occurs most often in the primary areas of the disease.

Drs. Cross, Landis and their associates reported that bronchial aspirations, centrifuged in formalin, dehydrated, embedded and sectioned, offer an excellent opportunity to diagnose bronchial cancer. They made positive diagnoses of bronchial carcinoma in 62.5 per cent out of 81 suspected cases. The success of the method depends greatly upon the cooperation of the bronchoscopist and the technic utilized in obtaining the washings.

Considerable attention at this meeting was also given to study of cancer tests. The Cancer Control Division of the National Cancer Institute has established a department for such evaluations. So far many tests for cancer have been proposed, to wit: Hoff-Schwartz and Gruskin skin test, methylene blue reduction, plasma coagulation, Huggins test, Benedien Colloidal Vandate, serum phosphatase, etc. Not one of these tests has been found to be specific for cancer.

Connor, Swenson and Curtis evolved a simple

plan for determining blood iodine. A well trained technician can perform the test in three hours, and several bloods can be examined concurrently. This test would appear to be of marked importance because of the increased interest in blood iodine content in metabolic diseases, especially toxic goiters, etc.

Dr. Hans Nauman presented his impressions with postmortem analyses from a chemical viewpoint. He analyzed cerebrospinal fluid and blood from the left and right sides of the heart for glucose, urea, creatinine, uric acid, carbon dioxide, etc. He found that anginal states cause elevated urea levels in spinal fluid up to 150 per cent or more. For routine work it is better to use the spinal fluid in postmortem chemistry than blood, and here also is to be found a satisfactory material for screening out such conditions as diabetes or uremia. Blood in such patients is not entirely satisfactory after death because clots may have formed in the circulation.

In addition to the other very valuable papers that were heard at this interesting meeting, The Mayo Clinic, under the direction of Drs. McDonald, Wollner and Bulbulian, had an exhibit dealing with lung tumors, their various types, malignant features or benign characteristics, localization, etc. The specimens were colored reproductions in mold forms; this was certainly the finest exhibit of its type that I had ever had the pleasure of seeing.

Lastly and finally, a part of one session was given over to discussion and problems concerned with pregnancy tests. It would appear that there is little difference in the results obtained when using morning urine or blood serum. The test can also be made with considerable accuracy by injecting blood or urine under the rabbit's skin; however, early positives will be often missed by this method. There were rumors that it is only a matter of time before a test of a chemical type for pregnancy will be devised and simplified by measuring the circulating hormone in the blood. Apparently the *frog test* has developed into a hot one, but some feel that the frog is not only unpleasant to use but is very emotional in its reactions. Males and females are not easily defined. The test is troublesome and should not be used if menopausal problems exist or an ectopic is suspected. Most clinical laboratories throughout the United States continue to use the domesticated *rabbit* as originally used or modified by Friedman. It is still the animal of choice, and when the test is properly performed has a specificity of 100 per cent with sensitivity of 98.5 per cent. These figures represent thousands upon thousands of observations performed over several years of time in many different localities.

JACK C. NORRIS, M.D.

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Marcus Mashburn.....	Cumming
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J. C. Brim.....	Pelham
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H. Walker Jernigan	Atlanta	T. Luther Byrd	Atlanta
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Lawson Thornton	Atlanta	James J. Clark	Atlanta
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Fifth District: Spencer A. Kirkland, Atlanta, Sept. 1, 1954.

Sixth District: C. L. Ridley, Macon, Sept. 1, 1950.

Seventh District: W. P. Harbin, Jr., Rome, Sept. 1, 1950.

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Ninth District: Robert L. Rogers, Gainesville, Sept. 1, 1951.

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STATE OF GEORGIA AT LARGE***Georgia Dental Association*

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J. G. Williams, Atlanta, Sept. 1, 1951.

Georgia Pharmaceutical Association

George Wright, Tifton, Sept. 1, 1953.

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*Nominated by their respective district medical societies and appointed for six-year terms.

**Nominated by their respective associations.

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COMMUNICATION

Dr. Edgar D. Shanks, Editor
Journal of the Medical Association of Georgia
478 Peachtree Street, N. E.
Atlanta, Ga.

Dear Dr. Shanks:

I am submitting the following news item for The Journal of the Medical Association of Georgia:

On Sept. 15, 1949, dedication ceremonies for the Grady Clay Memorial Eye Clinic were held at the Grady Memorial Hospital 72 Armstrong Street, Atlanta, Ga. The Grady Clay Memorial Eye Clinic is the result of the work of friends of the late Dr. Grady Edward Clay, Professor of Ophthalmology, who died July 12, 1946. Dr. Clay devoted his life to the development of the Department of Ophthalmology and

towards the high caliber of that specialty in the South. He was active in the State of Georgia, as well as in the Southern Medical Association and was one of the contributing editors of the Archives of Ophthalmology. From the time of his appointment as head of the Department of Ophthalmology in 1939 until his death, he worked continually in teaching, research, and publications in his specialty. It was always his wish to develop an outstanding graduate training program in ophthalmology at Emory University. Dr. Phinizy Calhoun, Sr., Emeritus Professor of Ophthalmology at Emory University, delivered the address and was followed by Dr. J. Mason Baird, Director of the Grady Clay Memorial Clinic. The Grady Clay Memorial Eye Clinic building was accepted by Dr. R. Hugh Wood, Dean of the Emory University School of Medicine and Dr. Alton V. Hallum, acting head of the Department of Ophthalmology.

The Grady Clay Memorial Eye Clinic is a two-story, air-conditioned, brick building. It houses the out patient clinics for the Department of Ophthalmology consisting of treatment and examining rooms, rooms for perimetry and photography, the Montgomery Ophthalmological Laboratory, under the direction of Dr. Phinizy Calhoun, Jr., an instruction room for the undergraduate students, and a conference room for graduate medical education, used by the residents. There is also a library room for ophthalmology, which is part of the Emory University Medical Library. Morgan B. Raiford, M.D., M.Sc. (Med) was appointed as fulltime Clinical Director of the Grady Clay Memorial Eye Clinic, on September 1, 1949. He is in charge of the teaching and research program of the Grady Clay Clinic. Glaucoma and Motility clinics have been organized as part of the Department of Ophthalmology program.

Thanking you and with best wishes, I am,

Sincerely yours,
MORGAN B. RAIFORD, M.D.
Clinical Director.

THE NEW ORLEANS GRADUATE MEDICAL ASSEMBLY POST-CLINICAL TOUR

The New Orleans Graduate Medical Assembly is sponsoring an interesting post-clinical tour to follow the 1950 meeting in New Orleans. On Saturday, March 11, a party composed of doctors and their wives will leave by plane for San Juan, Puerto Rico. The itinerary will also include the Virgin Islands; Ciudad Trujillo, Dominican Republic; Kingston and Montego Bay, Jamaica and Havana.

Medical programs and visits to hospitals have been arranged and the trip also includes a full schedule of sightseeing. World famous resort hotels are reserved for the group on the entire tour—to name a few, the Condado Beach Hotel in San Juan, Hotel Jaragua in Ciudad Trujillo, Myrtlebank and Tower Isle Hotels in Jamaica and the Hotel Nacional in Havana.

Departure from New Orleans will be on Saturday, March 11 and the party will return on Sunday, March 26.

Details and a complete itinerary are available at the office of the Assembly, Room 105, 1430 Tulane Avenue, New Orleans 12, Louisiana.

MEDICAL ASSOCIATION OF GEORGIA GROWS

The Medical Association of Georgia, now 100 years old, has had steady growth. On the following pages will be found its roster for the current year. Look for your name. Report promptly to Secretary Edgar Shanks, 478 Peachtree St., N. E., Atlanta, any errors found. The roster should contain 2251 names.

MEDICAL ASSOCIATION OF GEORGIA

County Medical Societies 1949

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 Alt. Delegate.... Peacock, Thomas G.
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 ford, R. W.; and Pennington,
 Veronica M.

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 Allen, H. D., Jr., Milledgeville
 Bailey, L. A., Milledgeville
 Binion, Richard, Milledgeville
 Bradford, R. W., Milledgeville
 Chesnutt, T. H., Milledgeville
 Clodfelter, Thos. C. Milledgeville
 Crichton, Robert B., Milledgeville
 Echols, George L., Milledgeville
 Fulghum, Charles B., Milledgeville
 Garrard, J. L., Milledgeville (de-
 ceased)
 Peacock, Thomas G., Milledgeville
 Pennington, L. E., VA Regional
 Office, Medical Dept., Albuquer-
 que, N. Mex.

Pennington, Veronica M., VA Re-
 gional Office, Medical Dept., Al-
 buquerque, N. Mex.

Schwall, Edward W., Gracewood
 (deceased)

Sikes, Walter A., Milledgeville

Sikes, Z. S., Fairfield State Hos-
 pital, Newtown, Conn.

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Waller, C. P., Milledgeville

Wiley, John D., Milledgeville

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 Howell, W. Harvey, Cartersville
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 Johnson, Roy J., Jr., Fitzgerald
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 Willis, G. W., Ocilla

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 Macon
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 Benton, Charles C., Briarecliff Rd.,
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 Macon

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 Johnson, J. E. L., Roberta
 Jones, John P., 853 Hemlock St.,
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 St., Macon
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 Keen, O. F., Persons Bldg., Macon
 King, J. L., Persons Bldg., Macon
 Lewis, William E., Persons Bldg.,
 Macon
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 Massenburg, G. Y., Clinic Hospital,
 Macon
 Mays, J. R. S., 700 Spring St.,
 Macon
 McAllister, Robert W., 700 Spring
 St., Macon
 McFarlane, John W., Professional
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 Bldg., Macon
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 St., Macon
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 Richardson, C. H., Jr., 700 Spring
 St., Macon
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 St., Macon
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 Los Angeles 25, Calif.
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 Macon
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 Macon
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 Bldg., Macon
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 Macon
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 Needl Rd., Augusta
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 ta
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 ance Bldg., Augusta

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Augusta
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Augusta
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St., Augusta
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Augusta
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St., Augusta
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Sano Ave., Augusta
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St., Augusta
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Augusta
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St., Augusta
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Augusta
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Augusta
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St., Augusta
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Augusta
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Bldg., Augusta
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Augusta
Thurmond, J. W., 623 Greene St.,
Augusta
Timmons, C. C., 415 Milledge Rd.,
Augusta
Torpin, Richard, University of
Georgia School of Medicine,
Augusta
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pital, Augusta
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Augusta
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Drive, Augusta
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Hospital, Augusta
Wright, George W., 1345 Greene
St., Augusta
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Surgical Aspects and Treatment of Surgical Infections, by Frank Lamont Melaney, M. D., F.A.C.S. Foreword by Allen O. Whipple, M. D., Philadelphia and London; W. B. Saunders Company, 1949.

This book covers the whole field of surgical infections including the pathogenesis, bacteriology, symptoms, signs and treatment. The material is well organized according to areas and organs with illustrative cases on each section. It stresses the importance of culture of all wounds with selection of sulfonamide or antibiotic most effective against the causative agent.

The book will be an aid to the student surgeon.

* * *

Operations of General Surgery, by Thomas G. Orr, M.D. Second Edition, Philadelphia and London: W. B. Saunders Company, 1949.

This book has been written for the beginner in surgery and also for the general surgeon as it includes many operative procedures in the surgical specialties. It does not cover pre-operative and post-operative care and is primarily a book on surgical technique. There is a brief discussion on anatomy, indications for operation and dangers and safeguards in the complicated procedures. It contains 1700 illustrations which are clear and detailed. This book will be an aid to the general surgeon and resident.

Atlas of Peripheral Nerve Injuries, by William R. Lyons, Ph.D., and Barnes Woodhall, M. D. Philadelphia and London: W. B. Saunders Company, 1949.

This book is a detailed atlas on the anatomy and histology of both normal peripheral nerves and severed nerves with additional pathology. It goes into detail on repair of nerves with factors influencing repair as time, suture materials, grafts and infection. It is written primarily for the pathologist and neuro-surgeon, but will be of aid to the general surgeon who is doing traumatic work.

Wm. P. LEONARD, M. D.

* * *

Clinical Diagnosis by Laboratory Examinations. By John A. Kolmer, M.S., M.D., Dr.P.H., Sc.D., LL.D., L.H.D., F.A.C.P., Professor of Medicine in the School of Medicine and the School of Dentistry of Temple University; Director of the Research Institute of Cutaneous Medicine; formerly Professor of Pathology and Bacteriology in the Graduate School of Medicine of the University of Pennsylvania. Second Edition. Published by Appleton-Century-Crofts, Inc., New York.

Again Dr. Kolmer, whose name is well known throughout the world for his contributions to science, has revised and brought up-to-date his *Clinical Diagnosis By Laboratory Methods*. The book is a credit to him, and will be found most useful to any one

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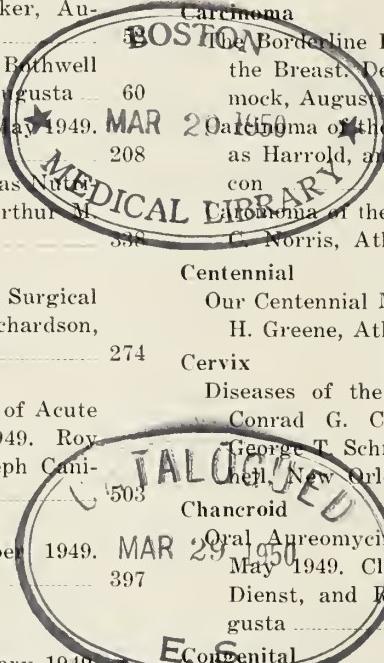
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- Claiborne, Mrs. T. S., 455 W. Wesley Rd., N. W., Atlanta
 Clark, Mrs. James J., 1081 Springdale Rd., N. E., Atlanta
 Clifton, Mrs. Ben H., 1893 Wyckoff Rd., N. W., Atlanta
 Cofer, Mrs. Olin S., 948 Lullwater Rd., N. E., Atlanta
 Cohen, Mrs. Isidore R., 2295 N. Decatur Rd., N. E., Atlanta
 Collier, Mrs. T. J., 1781 Peachtree St., N. W., Atlanta
 Collinsworth, Mrs. Allen M., 60 Montgomery Ferry Dr., N. E., Atlanta
 Collinsworth, Mrs. P. L., 393 Seventh St., N. E., Atlanta
 Cooke, Mrs. Virgil C., Baker's Ferry Rd., Rt. 8, Atlanta
 Coppedge, Mrs. William W., 313 Kimmeridge Dr., East Point
 Crawford, Mrs. H. C., 3000 E. Pine Valley Rd., N. W., Atlanta
 Crawford, Mrs. J. H., R.F.D. No. 1, Marietta
 Cross, Mrs. John B., 2606 Dellwood Dr., N. W., Atlanta
 Curtis, Mrs. Walker L., 302 W. Rugby Ave., College Park
 Daly, Mrs. Leo P., 480 E. Wesley Rd., N. E., Atlanta
 Daniel, Mrs. Charles H., 801 W. Rugby Ave., College Park
 Daniel, Mrs. Eugene L., 230 Howard St., N. E., Atlanta
 Daniel, Mrs. Walter W., 1705 Pelham Rd., N. E., Atlanta
 Davenport, Mrs. T. F., 1038 Peachtree Battle Ave., N. E., Atlanta
 Davis, Mrs. Robert Carter, 1950 W. Paces Ferry Rd., N. W., Atlanta
 Davis, Mrs. Shelley C., 1259 Peachtree Battle Ave., N. W., Atlanta
 Davis, Mrs. W. B., 720 W. Walker Ave., College Park
 Davison, Mrs. Hal M., 2888 Habersham Rd., N. W., Atlanta
 Davison, Mrs. T. C., 25 Valley Rd., N. W., Atlanta
 Denton, Mrs. John F., 1503 Peachtree St., N. E., Atlanta
 Dew, Mrs. J. Harris, 214 Peachtree Battle Ave., N. W., Atlanta
 Dickson, Mrs. Roger W., 1952 Walt Hall Dr., N. W., Atlanta
 Dobes, Mrs. William L., 912 Lullwater Rd., N. E., Atlanta
 Dorrough, Mrs. W. S., 2450 Peachtree Rd., N. W., Atlanta
 Dougherty, Mrs. Mark S., 285 Old Ivey Rd., Atlanta
 Dowman, Mrs. Charles E., 630 Linwood Ave., N. E., Atlanta
 Duncan, Mrs. John B., 18 Palisades Rd., Atlanta
 Dunn, Mrs. W. M., 2801 Andrews Dr., N. W., Atlanta
 Dunstan, Mrs. Edgar M., 604 Ponce de Leon Place, Decatur
 DuVall, Mrs. W. B., 905 Cascade Ave., S. W., Atlanta
 Eberhart, Mrs. Charles, 1206 Cumberland Rd., N. E., Atlanta
 Edgerton, Mrs. Milton T., 788 Penn Ave., N. E., Atlanta
 Edwards, Mrs. William T., 1034 College Ave., Decatur
 Ellis, Mrs. John, 251 N. Colonial Homes Circle, N. W., Atlanta
 Equen, Mrs. Murdock S., 2505 Habersham Rd., N. W., Atlanta
 Eskridge, Mrs. Frank, Jr., 1630 W. Peachtree St., N. W., Atlanta
 Estes, Mrs. H. G., 1166 Lullwater Rd., N. E., Atlanta
 Evans, Mrs. A. L., 2393 Hurst Dr., N. E., Atlanta
 Fancher, Mrs. J. K., 3094 E. Pine Valley Rd., N. W., Atlanta
 Fincher, Mrs. Edgar F., 109 Peachtree Circle, N. E., Atlanta
 Fischer, Mrs. L. C., Rt. No. 1, Sharpsburg
 Fitts, Mrs. John B., 31 LaFayette Dr., N. E., Atlanta
 Florence, Mrs. Thomas J., Rocksprings Estate Apt. 3, Bldg. 10, 1420 Rock Springs Rd., N. E., Atlanta
 Fort, Mrs. C. A., 1252 Emory Circle, N. E., Atlanta
 Foster, Mrs. Kimsey E., 207 E. Columbia Ave., College Park
 Fowler, Mrs. C. Dixon, 2375 Haven Ridge Dr., N. W., Atlanta
 Frierson, Mrs. Norton, 787 Penn Ave., N. E., Atlanta
 Fuller, Mrs. George W., 1384 Fairview Rd., N. E., Atlanta
 Funko, Mrs. John, 712 Durant Pl., N. E., Atlanta
 Funkhouser, Mrs. W. L., 2419 Woodward Way, N. W., Atlanta
 Galvin, Mrs. Wm. H., 38 Andrew Circle, Emory University
 Gay, Mrs. T. Bolling, Jr., 3042 W. Pine Valley Rd., N. W., Atlanta
 Gershon, Mrs. Nathan I., 305 Tenth St., N. E., Atlanta
 Glenn, Mrs. Wadley R., 6565 Glenridge Dr., Dunwoody
 Glisson, Mrs. C. S., Jr., 1012 Cumberland Rd., N. E., Atlanta
 Goodwin, Mrs. Franklin H., 223 N. Colonial Homes Circle, N. W., Atlanta
 Goodwyn, Mrs. Thomas P., 2400 Woodward Way, N. W., Atlanta
 Goodyear, Mrs. William E., 1223 Emory Dr., N. E., Atlanta
 Green, Mrs. Samuel, 697 E. Morningside Dr., N. E., Atlanta
 Greene, Mrs. Edgar H., 1442 W. Wesley Rd., N. W., Atlanta
 Griffin, Mrs. Claude, 28 Brookhaven Dr., Atlanta
 Hailey, Mrs. Howard, 2811 Andrews Dr., N. W., Atlanta
 Hall, Mrs. Charles E., Jr., 908 Piedmont Ave., N. E., Atlanta
 Hallum, Mrs. Alton V., 353 Peachtree Battle Ave., N. W., Atlanta
 Hamff, Mrs. L. Harvey, 1063 E. Clifton Rd., Atlanta
 Hamm, Mrs. William G., 2877 Habersham Rd., N. W., Atlanta
 Hancock, Mrs. R. K., 156 Conway Rd., Decatur
 Hanner, Mrs. James P., 2677 Arden Rd., N. W., Atlanta
 Harris, Mrs. J. Frank, 3028 Piedmont Rd., N. E., Atlanta
 Harrison, Mrs. M. T., 1096 E. Clayton Rd., N. E., Atlanta
 Hauck, Mrs. A. E., 99 Princeton Way, N. E., Atlanta
 Hecht, Mrs. E. Barnett, 1181 Stewart Ave., S. W., Atlanta
 Henry, Mrs. Lamont, 201 Brighton Rd., N. E., Atlanta
 Hewell, Mrs. Guy C., 1123 Berkshire Rd., N. E., Atlanta
 Heyser, Mrs. D. T., 5910 Glenridge Dr., N. E., Rt. 6, Atlanta
 Hill, Mrs. William H., 1066 Spring St., N. W., Atlanta
 Hobby, Mrs. A. Worth, 1740 Meadowdale Ave., N. E., Atlanta
 Hockenhull, Mrs. John A., 546 Ethel St., N. W., Atlanta
 Hedges, Mrs. Fred B., Jr., 2255 Virginia Pl., N. E., Atlanta
 Hodgson, Mrs. Fred G., 851 Clifton Rd., N. E., Atlanta
 Holden, Mrs. Farish C., 1256 Morningside Dr., Atlanta
 Holliman, Mrs. Henry D., Jr., 4062 N. Ivy Rd., Atlanta
 Holloway, Mrs. Charles E., 2637 E. Wesley Terrace, N. E., Apt. 1, Atlanta
 Holloway, Mrs. George A., 489 Westover Dr., N. W., Atlanta
 Holmes, Mrs. Walter R., 85 Peachtree Circle, N. E., Atlanta
 Hopkins, Mrs. William A., 1374 Villa Dr., N. E., Apt. 1, Atlanta
 Hoppe, Mrs. L. D., 184 Peachtree Battle Ave., N. W., Atlanta
 Howard, Mrs. Charles K., 2289 Venetian Dr., S. W., Atlanta
 Howell, Mrs. Stacy C. Brentwood Dr., N. E., Atlanta
 Hrdlicka, Mrs. George R., 658 Kennesaw Ave., N. E., Atlanta
 Hudson, Mrs. Paul L., 19 Brookhaven Dr., N. E., Atlanta
 Huie, Mrs. Robert E., 19 Exeter Rd., Avondale Estates
 Hydrick, Mrs. Peter, 134 W. Walker Ave., College Park
 Ivey, Mrs. J. C., 1655 Ponce de Leon Ave., N. E., Atlanta
 Jacobs, Mrs. John L., 2883 Andrews Dr., N. W., Atlanta
 Jennings, Mrs. James L., 683 E. Elkmont Dr., N. E., Atlanta
 Jernigan, Mrs. H. Walker, 352 Redland Rd., N. W., Atlanta
 Jernigan, Mrs. Sterling H., 2258 Virginia Pl., N. E., Atlanta
 Johnson, Mrs. McLaren, 23 Collier Rd., N. W., Atlanta
 Jones, Mrs. Jack W., 129 Brighton Rd., N. E., Atlanta
 Josephs, Mrs. Alvin D., 939 Courtney Dr., N. E., Atlanta
 Kanthak, Mrs. Frank E., 302 Golf View Rd., N. W., Atlanta
 Kelly, Mrs. James D., 2724 Atwood Rd., N. E., Atlanta
 Kelly, Mrs. Robert P., 3016 Lenox Rd., N. E., Atlanta
 Kemper, Mrs. Clifton G., 956 Stovall Blvd., N. E., Atlanta
 Ketron, Mrs. Hubert W., 2855 Peachtree Rd., Atlanta
 King, Mrs. James T., 1062 Oxford Rd., N. E., Atlanta

- King, Mrs. Lewell S., 119 Rugby Circle, College Park
 Kirkland, Mrs. S. A., 106 Peachtree Battle Ave., N. W., Atlanta
 Kiser, Mrs. William H., Jr., 210 Peachtree Circle, N. E., Atlanta
 Kite, Mrs. J. Hiram, 639 E. Ponce de Leon Ave., Decatur
 Klugh, Mrs. George F., 395 Tenth St., N. E., Atlanta
 Krugman, Mrs. Philip L., 115 Peachtree Mem. Dr., N. W. Atlanta
 Lake, Mrs. William F., 241 Rumson Rd., N. E., Atlanta
 Lamm, Mrs. J. H., 324 N. Colonial Homes Circle, N. W., Atlanta
 Landham, Mrs. Jackson W., 4199 Club Dr., N. E., Atlanta
 Lange, Mrs. J. Harry, 2870 Arden Rd., N. W., Atlanta
 Leadingham, Mrs. R. S., 117 S. Bilbro Ave., Murfreesboro, Tenn.
 Leonard, Mrs. William P., 44 Inman Circle, N. E., Atlanta
 Letton, Mrs. A. Hamblin, 1 Pine Circle, N. E., Atlanta
 Linch, Mrs. A. O., 943 Rosedale Rd., N. E., Atlanta
 Lineback, Mrs. Merrill I., 2136 McKinley Rd., N. W., Atlanta
 Logue, Mrs. Bruce R., 145 Westminster Dr., N. E., Atlanta
 Lokey, Mrs. Hugh M., 256 Fourteenth St., N. E., Atlanta
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 Matthews, Mrs. Oscar H., 61 Barksdale Dr., N. E., Atlanta
 Matthews, Mrs. Thomas V., 2184 Peachtree Rd., N. W., Atlanta
 Matthews, Mrs. Warren B., 216 N. Candler St., Decatur
 Mauldin, Mrs. John T., 31 Karland Dr., N. W., Atlanta
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 Mills, Mrs. C. W., Jr., 348 E. Wesley Rd., N. E., Atlanta
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 Myers, Mrs. Martin T., 2938 Howell Mill Rd., Atlanta
 Nabors, Mrs. Dewey T., 2380 Dellwood Dr., N. W., Atlanta
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 O'Neal, Mrs. Buford, 173 Putnam Circle, N. W., Atlanta
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 Rasmussen, Mrs. Earl, 2420 Peachtree Rd., N. W., Atlanta
 Read, Mrs. Ben S., 993 Stovall Boulevard, N. E., Atlanta
 Read, Mrs. Joseph C., 3970 Vermont Rd., N. E., Atlanta
 Redd, Mrs. Stephen C., 3515 Ridgewood Rd., N. W., Atlanta
 Reed, Mrs. Clinton, Rt. 2, Smyrna Rhodes, Mrs. C. A., 75 Ponce de Leon Ave., N. E., Atlanta
 Rice, Mrs. Guy V., 796 Clemont Dr., N. E., Atlanta
 Richardson, Mrs. Jeff L., 969 Clifton Rd., N. E., Atlanta
 Ridley, Mrs. Harry W., 1055 Rosewood Dr., Atlanta
 Rieser, Mrs. Charles, 3777 Paces Ferry Rd., N. W., Atlanta
 Rieth, Mrs. Paul L., 1605 Harvard Rd., N. E., Atlanta
 Roberts, Mrs. C. W., 75 Ponce de Leon Ave., N. E., Atlanta
 Roberts, Mrs. M. Hines, 393 W. Wesley Rd., N. W., Atlanta
 Roberts, Mrs. Stewart R., 16 Woodcrest Ave., N. W., Atlanta
 Robinson, Mrs. Lisle B., 878 Myrtle St., Atlanta
 Robinson, Mrs. R. L., 3870 Lake Forrest Dr., N. W., Atlanta
 Rogers, Mrs. J. Harry, 699 E. Paces Ferry Rd., N. E., Atlanta
 Rosenberg, Mrs. H. J., 846 Briarcliff Rd., N. E., Atlanta
 Rouglan, Mrs. L. C., 1136 Briarcliff Rd., N. E., Atlanta
 Sage, Mrs. Dan Y., 47 Inman Circle, N. E., Atlanta
 Sanders, Mrs. A. S., 1660 N. Emory Rd., N. E., Atlanta
 Sandison, Mrs. J. Calvin, 3025 Nancy's Creek Rd., N. W., Atlanta
 Sauls, Mrs. H. C., 2887 Howell Mill Rd., N. W., Atlanta
 Scarborough, Mrs. J. E., 100 Westminster Dr., Atlanta
 Sealey, Mrs. R. Mitchell, 1320 Emory Circle, N. E., Atlanta
 Selman, Mrs. W. A., 760 Penn Ave., N. E., Atlanta
 Shackleford, Mrs. B. L., 120 Blackland Rd., Atlanta
 Sheldon, Mrs. Walter H., 1117 Zimmer Dr., N. E., Atlanta
 Shepard, Mrs. Duncan, 80 28th St., N. W., Atlanta
 Skiles, Mrs. William V., Jr., 2500 Acorn Ave., N. E., Atlanta
 Skobba, Mrs. Joseph S., 25 Sheridan Dr., N. E., Atlanta
 Sloan, Mrs. W. P., 1282 Oakdale Rd., N. E., Atlanta
 Smith, Mrs. Carter, 450 W. Wesley Rd., Atlanta
 Smith, Mrs. Charles W., 1387 Northview, N. E., Atlanta
 Smith, Mrs. Linton, 1428 Peachtree St., N. E., Atlanta
 Smith, Mrs. Randolph, 37 LaFayette Dr., N. E., Atlanta
 Smith, Mrs. William A., 2956 Lenox Rd., N. E., Atlanta
 Staton, Mrs. T. R., 60 Muscogee Ave., N. W., Atlanta

Steadman, Mrs. Henry E., 3021 Stewart Ave., Hapeville
 Stelling, Mrs. Henry G., 1413 Cameron Court, N. E., Atlanta
 Stephenson, Mrs. R. H., 2249 Virginia Pl., N. E., Atlanta
 Stewart, Mrs. Calvin B., 21 W. Andrews Dr., N. W., Atlanta
 Stone, Mrs. Charles F., Jr., 4175 Club Dr., N. E., Atlanta
 Strickler, Mrs. C. W., Jr., 355 Peachtree Battle Ave., Atlanta
 Swanson, Mrs. Cosby, 10 Cherokee Rd., Atlanta
 Swanson, Mrs. Homer S., 3834 Vermont Rd., N. E., Atlanta
 Tankesley, Mrs. Robert M., 209 Oak Lane, Decatur
 Taranto, Mrs. Morris B., 425 Tenth St., N. E., Atlanta
 Tarplee, Mrs. Scott L., 125 Palisades Rd., N. E., Atlanta
 Thomason, Mrs. W. L., 137 W. Wesley Rd., N. W., Atlanta
 Thompson, Mrs. D. O., 594 Westover Dr., N. W., Atlanta
 Tidmore, Mrs. T. L., 963 Plymouth Rd., N. E., Atlanta
 Timberlake, Mrs. Lloyd F., 670 Longwood Dr., N. W., Atlanta
 Turk, Mrs. L. N., 1516 N. Morningside Dr., N. E., Atlanta
 Turner, Mrs. Edwin W., 1119 Winburn Dr., East Point
 Turner, Mrs. John W., 3985 Vermont Rd., N. E., Atlanta
 Upshaw, Mrs. Charles B., 394 W. Wesley Rd., N. W., Atlanta
 Van Dyke, Mrs. Arthur N., 1925 Greystone Rd., N. W., Atlanta
 Varner, Mrs. John B., 181 Peachtree Battle Ave., N. W., Atlanta
 Wagnon, Mrs. George N., 360 Haskell Rd., N. W., Atlanta
 Warner, Mrs. W. P., Jr., 105 Peachtree Memorial Dr., N. W., Atlanta
 Warren, Mrs. William C., Jr., 980 Briarcliff Rd., N. E., Atlanta
 Waters, Mrs. W. C., 878 Virginia Ave., N. E., Atlanta
 Weinberg, Mrs. James L., 2356 Montview Dr., N. E., Atlanta
 Weinstein, Mrs. A. A., 380 Whitmore Dr., N. W., Atlanta
 Whipple, Mrs. Robert L., Jr., 919 Peachtree Battle Circle, N. W., Atlanta
 Whitaker, Mrs. Carl A., 1344 Briarcliff Rd., N. E., Atlanta
 Willingham, Mrs. T. Irvin, 3781 Tuxedo Rd., N. W., Atlanta
 Wilson, Mrs. Richard, 1878 Monroe Dr., N. E., Atlanta
 Weddail, Mrs. Joseph D., 891 Amsterdam Ave., N. E., Atlanta
 Wood, Mrs. R. Hugh, 3513 Roswell Rd., Atlanta
 Woolley, Mrs. Lawrence F., 1607 Barclay Pl., N. E., Atlanta
 Wright, Mrs. Edward S., 2865 Howell Mill Rd., N. W., Atlanta
 Yampolsky, Mrs. Joseph, 746 Brookridge Dr., N. E., Atlanta

SIXTH DISTRICT

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Baldwin County

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 Allen, Mrs. E. W., Allen's Invalid Home, Milledgeville
 Allen, Mrs. H. D., Allen's Invalid Home, Milledgeville
 Allen, Mrs. T. P., N. Jefferson St., Milledgeville
 Anderson, Mrs. S. A., 36 Sheridan Dr., N. E., Atlanta
 Bailey, Mrs. L. A., Milledgeville State Hospital, Milledgeville
 Binion, Mrs. Richard, Green St., Milledgeville
 Bradford, Mrs. R. W., Milledgeville State Hospital, Milledgeville
 Bostick, Mrs. W. A., Milledgeville State Hospital, Milledgeville
 Cary, Mrs. H. R., 508 W. Montgomery St., Milledgeville
 Chesnutt, Mrs. T. H., Milledgeville State Hospital, Milledgeville
 Clodfelter, Mrs. T. C., Milledgeville State Hospital, Milledgeville
 Crichton, Mrs. R. B., Milledgeville State Hospital, Milledgeville
 Echols, Mrs. G. L., Milledgeville State Hospital, Milledgeville
 Fulghum, Mrs. C. B., 210 Jefferson St., Milledgeville
 Garrard, Mrs. J. I., Milledgeville State Hospital, Milledgeville
 Longino, Mrs. L. P., Green St., Milledgeville
 Peacock, Mrs. T. G., Milledgeville State Hospital, Milledgeville
 Richardson, Mrs. C. H., Columbia St., Milledgeville
 Smith, Mrs. M. E., Milledgeville State Hospital, Milledgeville
 Walker, Mrs. E. Y., Columbia St., Milledgeville
 Walker, Mrs. N. P., Green St., Milledgeville
 Woods, Mrs. O. C., N. Jefferson St., Milledgeville
 Wiley, Mrs. John D., Milledgeville State Hospital, Milledgeville

Bibb County

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 Anderson, Mrs. Carl L., 280 College St., Macon
 Anderson, Mrs. J. C., 106 Stanislaus Circle, Macon
 Applewhite, Mrs. J. D., 565 College St., Macon
 Atkinson, Mrs. Harold C., 111 Bedford Place, Macon
 Barton, Mrs. William L., Waverland Dr., Macon
 Bashinski, Mrs. Benjamin, 164 Buford Pl., Macon
 Baxley, Mrs. William L., 445 Pierce Dr., Macon
 Bazemore, Mrs. Wallace L., 127 Beverly Pl., Macon
 Billingham, Mrs. George A., 3255 Ingleside Ave., Macon
 Boswell, Mrs. W. C., 362 Buford Pl., Macon
 Branan, Mrs. Fred H., 3136 Brookwood Dr., Macon

Brannen, Mrs. Edmund A., 249 Corbin Ave., Macon
 Brown, Mrs. Roland A., 360 Orange St., Macon
 Bush, Mrs. Holloway, 645 Vista Circle, Macon
 Chrisman, Mrs. W. W., 165 Corbin Ave., Macon
 Clay, Mrs. J. Emory, 364 Cherokee Ave., Macon
 Cole, Mrs. Allen A., 267 Buford Pl., Macon
 Cooper, Mrs. Charles F., 146 Beverly Pl., Macon
 Corn, Mrs. Ernest, 555 College St., Macon
 Dove, Mrs. W. B., 135 Boulevard, Macon
 DuPree, Mrs. George W., Gordon
 DuPree, Mrs. John T., Gordon
 Edenfield, Mrs. Robert W., 224 Riverside Dr., Macon
 Farmer, Mrs. C. Hall, 118 Pio Nona Ave., Macon
 Fountain, Mrs. James A., 216 Jackson Springs Rd., Macon
 Golsan, Mrs. Willard R., 794 Courtland Ave., Macon
 Goodman, Mrs. Leon J., 1250 Vineville Ave., Macon
 Goolsby, Mrs. R. Cullen, 116 Rogers Ave., Macon
 Hall, Mrs. John L., 231 High St., Macon
 Hansno, Mrs. J. Fletcher, 129 The Prado, Macon
 Harrold, Mrs. Charles C., 550 Orange St., Macon
 Harrold, Mrs. Thomas, Jr., 567 College St., Macon
 Hatcher, Mrs. Milford B., 2223 Elm Ridge Dr., Macon
 Hazlehurst, Mrs. W. D., 770 Vista Circle, Macon
 Henderson, Mrs. D. T., Vineville Court, Macon
 Holmes, Mrs. J. P., 252 Overlook Ave., Macon
 Houser, Mrs. Frank M., 151 Corbin Ave., Macon
 James, Mrs. Lemuel P., 246 Corbin Ave., Macon
 Jarrett, Mrs. W. Devereaux, Jr., 656 College St., Macon
 Jones, Mrs. John Paul, Twin Pines Apt. 7D, Macon
 Jordan, Mrs. William K., 203 High St., Macon
 Kay, Mrs. J. B., Byron
 Keen, Mrs. O. F., 2319 Clayton St., Macon
 King, Mrs. J. L., 283 Buford Pl., Macon
 Mass, Mrs. Max, 125 The Prado, Macon
 Mays, Mrs. J. R. S., 2587 Elizabeth Pl., Macon
 McAllister, Mrs. R. W., 3130 Ingleside Ave., Macon
 McFarlane, Mrs. J. W., 3163 Brookwood Dr., South, Macon
 McLaughlin, Mrs. Charles K., 3125 Ingleside Ave., Macon
 McMichael, Mrs. V. H., River Road, Macon
 McMillan, Mrs. E. C., Jr., 166 Rogers Ave., Macon

Mobley, Mrs. Walter E., 563 College St., Macon
 Newman, Mrs. W. A., 571 Orange St., Macon
 Newton, Mrs. Ralph G., 650 Ridge Ave., Macon
 Patton, Mrs. Sam E., 141 Beverly Pl., Macon
 Phillips, Mrs. A. M., 131 Buford Pl., Macon
 Pope, Mrs. Edgar M., 19 Arlington Pl., Macon
 Porch, Mrs. Leon D., 240 Riverdale Dr., Macon
 Prescott, Mrs. E. H., 3141 Brookwood Dr., Apt. B, Macon
 Reifler, Mrs. R. M., 2482 McDonald, Macon
 Richardson, Mrs. Charles H., 359 Cherokee Ave., Macon
 Richardson, Mrs. Charles H., Jr., Jackson Springs Rd., Macon
 Richardson, Mrs. Rhea W., 2516 Forsyth Rd., Macon
 Ridley, Mrs. Charles L., Jr., 3180 Brookwood Dr., Macon
 Rogers, Mrs. T. E., 120 Clisby Place, Macon
 Ross, Mrs. Thomas L., Jr., 310 Nottingham Dr., Macon
 Rozar, Mrs. A. R., Shirley Hills, Macon
 Rubin, Mrs. Sam N., Gordon
 Rumble, Mrs. Charles T., 219 Albermarle Place, Macon
 Siegel, Mrs. Alvin E., 890 Vista Circle, Macon
 Smith, Mrs. Allen, 312 Overlook Ave., Macon
 Thompson, Mrs. O. R., 112 Pionona Ave., Macon
 Tift, Mrs. Henry H., 420 Nottingham Dr., Macon
 Vinson, Mrs. Frank, Ft. Valley
 Walker, Mrs. D. D., 120 Stanislaus Circle, Macon
 Watson, Mrs. Edwin R., 1402 Vineville Ave., Macon
 Watson, Mrs. O. O., 204 Hillcrest Ave., Macon
 Weaver, Mrs. Hudnall G., 183 Calaway St., Macon
 Williams, Mrs. W. A., 240 Stanislaus Circle, Macon
 Woods, Mrs. Charles J., 179 North Ave., Macon
 Work, Mrs. Sam, 420 Overlook Ave., Macon
 Zachry, Mrs. J. D., Gray

Washington County

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 Dillard, Mrs. J. B., Davison
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 King, Mrs. W. R., Tennille
 Lennard, Mrs. O. D., Tennille
 Lever, Mrs. Joe, Sandersville
 Newsom, Mrs. N. J., Sandersville
 Newsome, Mrs. Emory G., Sandersville
 Overby, Mrs. N., Sandersville
 Peacock, Mrs. E. S., Sandersville
 Rawlings, Mrs. F. B., Sandersville
 Rawlings, Mrs. William, Sandersville

SEVENTH DISTRICT
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 Allen, Mrs. George O., 1005 Cherokee St., Marietta
 Bailey, Mrs. E. M., Acworth
 Benson, Mrs. Earl, Bells Ferry Rd., Marietta
 Benson, Mrs. Regina Rambo, 406 Whitlock Ave., Marietta
 Benson, Mrs. William H., Burnt Hickory Rd., Marietta
 Burleigh, Mrs. Bruce D., 459 Pine Crest Circle, Marietta
 Busch, Mrs. John F., 310 McDonald St., Marietta
 Cauble, Mrs. George C., Jr., Acworth
 Clark, Mrs. F. B., Austell
 Colquitt, Mrs. A. O., 1011 Whitlock Ave., Marietta
 Crawley, Mrs. Walter G., 103 Frey Dr., Marietta
 Elder, Mrs. C. D., 509 Kennesaw Ave., Marietta
 Fowler, Mrs. Herbert, 1110 Cherokee St., Marietta
 Fowler, Mrs. Ralph W., 303 McDonald St., Marietta
 Garland, Mrs. Charles Mayes, Jr., Smyrna
 Garrett, Mrs. Luke, Sr., Austell
 Garret, Mrs. Luke, Jr., Austell
 Hagood, Mrs. George F., 710 Church St., Marietta
 Hagood, Mrs. Murl M., 617 Whitlock Ave., Marietta
 Lindley, Mrs. F. P., Powder Springs
 McCall, Mrs. Moze N., Acworth
 Musarra, Mrs. Elmer A., 101 Oakmont Dr., Marietta
 Perkinson, Mrs. W. H., 819 Church St., Marietta
 Welch, Mrs. L. L., 1011 Church St., Marietta

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 Brannon, Mrs. Emmett, 103 Woodcrest Dr., Rome
 Connor, Mrs. J. C., Cave Springs
 Crow, Mrs. Horace, Battey Hospital, Rome
 Davis, Mrs. Ralph, 2 Leland Ave., Rome
 Dawson, Mrs. Harry, Shannon
 Garner, Mrs. Sam, Mimosa Dr., Rome
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 cross
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 as St., Waycross
 Massey, Mrs. C. M., Churchwell
 Apartments, Waycross

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 Blvd., Waycross
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 St., Waycross
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Pomeroy, Mrs. W. L., 1421 St.

Mary's Dr., Waycross

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Blvd., Waycross

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St., Waycross

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Dr., Waycross

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Circle, Waycross

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Waycross

Witmer, Mrs. C. A., 501 Gilmore

St., Waycross

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(Organized October, 1949)

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 nelia

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 ville

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 E. Franklin, Toccoa

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 Toccoa

Singer, Mrs. Arthur G., Jr., 210
 Blvd., Toccoa

Watters, Mrs. Julian Q., 107 Hend-
 erson Dr., Toccoa

TENTH DISTRICT**Richmond County**

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Bailey, Mrs. T. E., 2842 Helen St.,
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Battey, Mrs. W. W., Jr., 2239 Kings
 Way, Augusta

*Battey, Mrs. W. W., Sr., 826 Hick-
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Bazemore, Mrs. J. Malcolm, 868
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Beard, Mrs. Byron C., 1445 Troupe
 St., Augusta

Bowen, Mrs. J. B., 1538 Schley St.,
 Augusta

*Honorary member.

*Honorary member.

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 Brittingham, Mrs. J. W., 3046 Pine Needle Rd., Augusta
 Brown, Mrs. J. M., 111 D. Courts, Augusta
 Brown, Mrs. Stephen W., Forest Hills Apts., Augusta
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 Chaney, Mrs. R. H., 2918 Bransford Rd., Augusta
 Clary, Mrs. T. L., 1329 Highland Ave., Augusta
 Cranston, Mrs. W. J., 2749 Walton Way, Augusta
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 Dick, Mrs. Fred, Jr., 1728 Oak Dr., Augusta
 Estes, Mrs. Marion M., Lumpkin Rd., Augusta
 Flanagan, Mrs. W. S., 1213 Summerville Rd., North Augusta, S. C.
 Fuller, Mrs. W. A., 608 Peachtree Rd., Augusta
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 Holmes, Mrs. L. P., 2810 Hillcrest Ave., Augusta
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 Kelly, Mrs. G. L., Gardner St., Augusta
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 Schmidt, Mrs. H. L., Jr., 2504 Helen St., Augusta
 Sheppard, Mrs. Walter, RFD No. 1, Box 131, Crestview, Augusta
 Sherman, Mrs. J. H., 2251 Walton Way, Augusta
 Sydenstricker, Mrs. V. P., 2251 Cumming Rd., Augusta
 Templeton, Mrs. C. M., 910 Carolina Ave., North Augusta, S. C.
 Tessier, Mrs. C. E., 1320 Buena Vista, Augusta
 Thompson, Mrs. S. Y., 1303 Monte Sano Ave., Augusta
 Thurmond, Mrs. J. W., Rt. No. 3, Carolina Heights, North Augusta, S. C.
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 Taylor, Mrs. G. A., 2311 Kings Way, Augusta
 Volpitto, Mrs. P. P., 3024 Bransford Rd., Augusta
 Watson, Mrs. W. G., 619 West Ave., North Augusta, S. C.
 Wilkes, Mrs. W. A., 1540 Schley St., Augusta
 Williams, Mrs. W. J., 1107 Johns Rd., Augusta
 Williams, Mrs. V. B., 1415 Johns Rd., Augusta
 Willis, Mrs. C. H., Washington Rd., Augusta
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NEW BOOKS

A Textbook of Surgery. By American Authors. Edited by Frederick Christopher, B.S., M.D., F.A.C.S., Professor of Surgery, Northwestern University Medical School; Chief Surgeon, Evanston (Illinois) Hospital. Pp. 1550, with 1465 illustrations on 742 figures. Fifth edition. Published by W. B. Saunders Company, Philadelphia and London, 1949.

This well known textbook of surgery, currently the fifth edition, has been brought up-to-date. All material, including its numerous illustrations, reflect the present-day knowledge concerning the subjects discussed. No surgeon can afford to overlook this book when buying surgical books for his library.

Diagnosis and Treatment of Brain Tumors and Care of the Neurosurgical Patient. By Ernest Sachs, A.B., M.D., Research Associate in Physiology, Yale University, New Haven; Formerly Professor of Clinical Neurological Surgery, Washington University School of Medicine, St. Louis. Three hundred forty-eight illustrations and ten color plates. Second edition. Published by The C. V. Mosby Company, St. Louis, 1949.

Dr. Sachs, long a contributor to the knowledge regarding the diagnosis and treatment of brain tumors and care of the neurosurgical patient, has revised his book. As always, it is rich with material, including many fine illustrations.

A Treatise on Obstetric Labor, by Richard Torpin, M.D., Professor and Chairman of the Department of Obstetrics and Gynecology, University of Georgia School of Medicine, Augusta, Georgia, 1948, pp. 590. Published by the Author.

Dr. Torpin's book, based upon a ten-year study of obstetric material, is a plea for the more conservative management of the obstetric patient and a lessening of dependency upon early surgical intervention in the uncomplicated labor case.

The book is composed of 41 chapters and a collection of illustrative case histories. Each chapter is documented with an extensive bibliography. Contributing authors on Erythroblastosis fetalis and the Rh factor include Edith L. Potter, M.D., and Philip Levine, M.D.

A considerable portion of the book is devoted to the management of the labor case with complications. Throughout the book the illustrations and charts are quite commendable, and the book is recommended not only to the student of medicine as a text but also to the practitioner of obstetrics as a worthy addition to his library.

* * *

An Atlas of Bone-Marrow Pathology. By M. C. G. Israels, M.S., M.D., M.R.C.P., Deputy Director, Department of Hematology, the University and Royal Infirmary, Manchester, England. Cloth. Price, \$6.50. Pp. 79, with 15 illustrations by D. Davidson, Medical Artist to the University of Manchester. Grune & Stratton, Inc., 381 4th Ave., New York 16, 1948.

This volume contains a brief summary of the more important pathologic patterns found in bone marrow in various diseases. The book is divided essentially into two parts, the first dealing with descriptive material on techniques of aspiration, classification of cells and pathologic pictures and the second with drawings in color of actual marrow material in the various disorders.

Concerning the first section, Dr. Israels has, fortunately, presented the material in a concise and instructive manner. His classification of cell types stresses easily identifiable changes rather than the minutiae which have tended to make this field so difficult for the student. The material on leukemias, likewise, emphasizes a functional rather than a morphologic approach. The description of marrow findings on the basis of qualitative, rather than "exact" quantitative, features has its merits. Finally, his summaries of pathologic changes of marrow will be of great help in the interpretation of the various marrow patterns.

Although the drawings are carefully executed and well printed, they fail, in large measure, to fill the gap in illustrative hematology. Nuclear structure is in general not too well depicted, and the coloring is sometimes inadequate. Nevertheless, the drawings will prove helpful in identifying cells in many cases.—*J.A.M.A.*, Oct. 15, 1949.

The University of Georgia School of Medicine, in cooperation with the Georgia Division of the American Cancer Society and the Cancer Control Division of the Georgia Department of Public Health, announces a Cancer Seminar for January 16-19, 1950. Enroll to: Director of Postgraduate Education, University of Georgia School of Medicine, Augusta, Ga.

NEWS ITEMS

Dr. Andrew C. Austin, Atlanta, announces the opening of his offices for the practice of pediatrics at 1218 South Oxford Road, N. E., Atlanta.

* * *

Dr. C. L. Ayers, Toccoa physician for the past 47 years, was recently honored by the Toccoa Chamber of Commerce with the "Man of the Year" award. Dr. Ayers graduated from Emory University School of

Medicine, Atlanta, in 1902, and interned at Grady Memorial Hospital, Atlanta. He began the practice of medicine in Carnesville, and after remaining there four years moved to Toccoa in 1906, where he has practiced since. He has taken post-graduate work in New York and Mayo Clinic, Rochester, Minn. During his 47 years of practice, this outstanding family physician has delivered approximately 6,000 babies. He has served as secretary-treasurer of the Stephens County Medical Society for 47 consecutive years—the longest known term of service of any physician in the United States. Dr. Ayers is past president of the Ninth District Medical Society, past president of the Medical Association of Georgia, and has served on numerous health committees. He was a medical officer in World War I, and a member of the local draft board in World War II. He is a Baptist, Mason, and Shriner, past president of the Kiwanis Club and served 12 years on the Toccoa School Board. Dr. Ayers was praised for his "unselfish and devoted service to the upbuilding of our community and State."

* * *

Dr. Sanford E. Ayers, Atlanta, announces the opening of his office for practice of medicine at 248 Pharr Road, N. E., (Buckhead) Atlanta.

* * *

Dr. J. Mason Baird, Atlanta, announces the association with him of Dr. W. Granville Tabb, Jr., in the practice of ophthalmology at 511 Medical Arts Building, Atlanta.

* * *

The Baldwin County Medical Society held its regular meeting at the Elks Clubhouse, Milledgeville, November 7. Dr. Thomas L. Ross, Jr., of Macon, spoke on "Coronary Changes." He gave an interesting and instructive discussion, and showed lantern slides of the electrocardiograms of several cases along with his discussion of the coronary changes. Following the program a buffet supper was served. Dr. M. E. Smith, secretary.

* * *

The Bibb County Medical Society held its dinner meeting at the S & S Cafeteria, Macon, November 1. Programs: "The Evaluation of Exfoliative Cytology in the Detection of Subclinical Cancer of Cervix Uteri", Dr. Edgar Pund, Augusta. Dr. A. M. Phillips, secretary.

* * *

Dr. C. D. Bowdoin, Atlanta, director of the Venereal Disease Control Division of the Georgia Department of Public Health, recently announced that plans are nearly complete to make Alto Medical Center a training school for nurses, public health workers and Army and Navy men from all over the nation. Georgia's venereal disease hospital was chosen because of the excellence of its program and facilities. Communicable disease investigators from all over the South will be taught the "know how" of tracking down the sexual contacts of infected patients and in persuading the contacts to be tested and treated when necessary. They will also be trained in other aspects of venereal disease control.

* * *

The Thirty-Fifth Annual Clinical Congress of the American College of Surgeons was held in Chicago, October 21. Nine hundred and twenty-one initiates were received into fellowship and eight honorary fellowships were conferred by the American College of Surgeons at the Convocation. The fellowships were conferred by Dr. Frederick A. Coller, of Ann Arbor, Mich., president of the College. The following Georgia surgeons were made new Fellows of the College: Drs. Ralph O. Bowden, Savannah; Milton Berry Bowman, Jr., Albany; B. Hartwell Boyd, Atlanta; James L. Campbell, Jr., Valdosta; George R. Conner, Columbus; William W. Coppedge, East Point; Charles E. Dowman, Atlanta; Cecil B. Elliott, Cedartown; Irving L. Greenberg, Atlanta; Charles E. Holloway, Atlanta; George

A. Holloway, Atlanta; Robert P. Kelly, Emory University; Alva H. Letton, Atlanta; John R. Lewis, Jr., Atlanta; Oscar H. Lott, Savannah; William G. Love, Jr., Columbus; Robert C. Major, Augusta; William A. Page, Augusta; Harry D. Pinson, Augusta; Ben S. Read, Atlanta; Charles L. Ridley, Jr., Macon; Meyer M. Schneider, Savannah; Charles W. Smith, Atlanta; J. Benham Stewart, Macon; Abraham S. Velkoff, Atlanta, and William P. Warner, Jr., Atlanta.

The American College of Surgeons has around 15,750 Fellows in the western hemisphere and in a few countries overseas. Headquarters are in Chicago. It was organized in 1913 to elevate the standards of surgery. One of its best known activities is hospital standardization; 3,150 hospitals were on the last approved list published in January, 1949. Clinical research, particularly in cancer; approval programs for cancer clinics, cancer detection centers, medical services in industry, and graduate training in surgery; production and approval of medical motion pictures; and literary research are among the other activities.

* * *

Dr. William S. Boyd, Augusta, attended the annual clinical conference of the American College of Surgeons in Chicago, October 21. He was present at the Lewis Memorial Maternity hospital to observe televised close-ups of obstetric and gynecologic procedures under saddle block anesthesia with heavy nupercaine.

* * *

Dr. Frank K. Boland, Atlanta surgeon, was one of the honor guests at the banquet for past-presidents of the Southern Medical Association held at the Netherland Plaza Hotel, Cincinnati, Ohio, during the annual session of the Association.

* * *

Dr. Alfred Tennyson Coleman, Dublin physician, is the result of a prescription: part politician, part farmer, part philanthropist, blended with a main ingredient of medical science. Dr. Coleman has been so busy practicing medicine since 1910 that he has not dabbled in politics much. He was elected to the county commission in 1921 to build better roads and bridges across the Oconee river. His election to the State Senate in 1948 gave him his first State office. Dr. Coleman was born in Rentz and began the practice of medicine in Cadwell. He moved to Dublin in 1919 and operates the Coleman Hospital. He lives on a large plantation that once belonged to Governor Troup, and farms extensively. In the Senate his chief interest is agricultural and health legislation. His son, Dr. Fred Coleman, is on the staff of the Coleman Hospital, and was recently appointed to the State medical examining board and is the youngest physician on the board.

* * *

Dr. James B. Craig, Savannah neuropsychiatrist, was recently appointed director of the Mental Health Clinic of the Community Guidance Center, Dr. C. A. Henderson, Savannah-Chatham Health Commissioner, announced. Dr. Craig was instrumental in the establishment of the psychiatric ward at St. Joseph's Hospital, Savannah. Together with Dr. Joseph Pacifici he operates Colonial Manor for the treatment of mild nervous disorders. Dr. A. H. Center, Savannah, is also a psychiatrist at the Mental Health Clinic.

* * *

Dr. G. T. Crozier, Valdosta, former health officer for Lowndes County, announces the opening of his offices in the Professional Building, Valdosta, for the practice of medicine. Dr. Crozier is re-entering private practice as a general practitioner.

* * *

Dr. W. Ben Davis, College Park, announces the association of Dr. J. C. McMillan in the practice of pediatrics at 115 South Main Street, College Park.

* * *

Dr. David A. Davis, of New Orleans, was recently appointed to the faculty of the University of Georgia

School of Medicine, Augusta, as assistant professor in the department of anesthesiology and as an associate in anesthesiology at the University Hospital. Dr. Davis was formerly connected with the Oschner Clinic, New Orleans, La.

* * *

Dr. T. C. Davison, Atlanta surgeon, was awarded an honorary fellowship to the International College of Surgeons at the convocation meeting held in Atlantic City, N. J., November 11.

* * *

Dr. William R. Dancy, Savannah physician, recently led the discussion at the film forum held at Gamble Hall, Bull and Taylor Streets, Savannah. "Clean Waters" is the title of the film which was shown. The forum is under joint sponsorship of the Woman's Advisory Board, the Savannah Public Library, and Armstrong College. The film was prepared in cooperation with the United States Public Health Service, and gives a dramatic presentation of the importance of the nation's natural waters and explains methods of preventing pollution.

* * *

Dr. George B. Dowling, retired Navy physician, has been named medical director and assistant manager for the Southeastern area of the American Red Cross in Atlanta. Dr. Dowling will be in charge of the Red Cross blood program, nursing service, safety services, and nutrition services. He was formerly Deputy Administrator of the National Red Cross Blood Program.

* * *

The Council on Medical Education and Hospitals of the American Medical Association reported on the comprehensive survey of medical education in the United States to the House of Delegates at the Clinical Session held in Washington, D. C., December 6-9. In order to complete the survey within the period established, the Council requested and received from the Board of Trustees of the American Medical Association authorization to appoint a number of regional representatives who would agree to take time from their practice or other duties to inspect hospitals in adjacent regions. Dr. Sandy B. Carter, Atlanta, was one of the twelve regional representatives appointed. The work of these men has been of uniformly high quality. Many of the hospitals that have been visited have written the Council expressing their appreciation for the advice and counsel provided. In giving generously of their time and effort these men have made a major contribution not only to the work of the Council, but also to the advance of graduate education in the United States.

* * *

Dr. George W. Brown, radiologist, recently joined the staff of the Strickland Memorial Hospital, Griffin. He graduated from the University of Georgia School of Medicine, Augusta, and took a postgraduate course in radiology at the University of Pennsylvania School of Medicine, Philadelphia. He served his internship at the St. Louis Hospital. Dr. Brown comes to Griffin from the Chester County Hospital, West Chester, Pa.

* * *

The First District Medical Society held its regular fall meeting at the Country Club, Statesboro, December 1. Scientific program: "Surgery of the Sympathetic Nervous System", Dr. A. M. Deal, Statesboro; "Today's Indication for Caesarian Section", Dr. M. M. Schneider, Savannah; "General Principles of Allergy", Dr. E. R. Cook, Savannah. Dr. William H. Fulmer, Savannah, secretary.

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The Eighth District Medical Society held its semi-annual meeting at the Valdosta Country Club, Valdosta, October 11. Dr. H. A. Seaman, Waycross, president of the society, presided. Invocation by Dr. Grady D. Feagan, Valdosta, pastor, of the Lee Street Baptist Church; Address of Welcome by Dr. C. W. Ketchum,

Valdosta, president of the South Georgia Medical Society; Response to Address of Welcome by Dr. John Penland, Waycross. Scientific program: "Some Aspects of Chemotherapy in the Treatment of Cancer," Dr. Charles S. Jones, Atlanta; "Common Fractures of the Arm and Forearm," Dr. F. Bert Brown, Savannah; "Dislocated Intervertebral Disc," Dr. James G. Leyerly, Jacksonville, Fla.; "Eighty Per Cent of the Lowndes County School Children Have Hookworm," Dr. J. Lyle Parrott, Hahira, told the society. Dr. Parrott said the amazingly high number of cases was revealed in a study being conducted by county, state, and national health officers in the locality. The study, begun in the 1947-48 school year, reviews 400 cases. A motion picture entitled "Spinal Anesthesia" was presented by Abbott Laboratories. Officers are Dr. J. B. Avera, Brunswick, president; Dr. F. G. Eldridge, Valdosta, vice-president; Dr. James L. Campbell, Jr., Valdosta, secretary-treasurer, and Dr. W. F. Reavis, Waycross, councilor.

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The Fourth District Medical Society held its meeting at the Highland Country Club, LaGrange, October 21, with the members of the Troup County Medical Society as hosts at dinner. Scientific paper: "The Significance of Blood in the Urine," Dr. Milus K. Bailey, Atlanta, professor of urology at Emory University School of Medicine. Officers are Dr. James Arnold, Newnan, president; and Dr. H. D. Meaders, Newnan, secretary. Dr. E. W. Molyneux, Hogansville, is president of the Troup County Medical Society and Dr. H. A. Foster, LaGrange, secretary-treasurer.

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Dr. Abe J. Davis, Augusta, commissioner of health of the Richmond County Health Department, recently attended the annual convention of the United States Public Health Association held in New York City.

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The Fulton County Medical Society held its semi-monthly dinner meeting at the Academy of Medicine, Atlanta, November 3. Scientific program: Dr. Shelley C. Davis, moderator. "The Extension of Radical Surgery in the Treatment of Cancer," Dr. George T. Pack, New York City, Pack Medical Group; "Why I Am An Exile From Socialized Medicine," Dr. Ralph J. Campell, former member Medical Branch of Royal Air Force and General Practitioner in England in 1947.

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Dr. Harriet E. Gillette, Atlanta, pediatrician and specialist in physical medicine, who is medical director at Aidmore Children's Convalescent Hospital, and Crippled Children's League of Georgia, Inc., Atlanta, also cerebral palsy consultant on the staff of the National Society for Crippled Children and Adults, held the cerebral palsy demonstration clinic at the Archbold Memorial Hospital, Thomasville, October 28. About 25 children reported for diagnosis, coming to Thomasville from several nearby towns.

Dr. Gillette was guest speaker at the meeting of the Chatham-Savannah Health Council held at the Armstrong Junior College, November 1. Her subject was "Cerebral Palsy." Dr. Ruskin King, Savannah, president of the council, presided. Dr. Albert J. Kelley, Savannah, was named by the council as president-elect to take the place of Dr. Robert Lee Oliver, Savannah, who recently resigned.

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The Georgia Medical Society held its regular meeting at 612 Drayton Street, Savannah, November 8. "Translumbar Aortic Puncture and Retrograde Catheterization of the Aorta in Aortography and Renal Arteriography," Dr. Peter L. Scardino. Dr. Sam Youngblood, Jr., secretary.

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Dr. Eugene Frederick Griffith, Eatonton physician and Putnam County's representative in the Legislature, has been a practicing physician for 35 years, but says

he is still a farmer at heart. He likes the farm after medicine. Dr. Griffith was elected to the State Senate without opposition in 1946 and made such a good record that he was sent back to the House without opposition in 1948.

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Dr. B. W. Harris, St. Simons Island, announces the reopening of his office for the practice of medicine at St. Simons Island after an extensive absence due to illness. At present he will limit his practice to office practice.

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Dr. Clair A. Henderson, Savannah, city-county health director, recently attended the meeting of the American Public Health Association held in New York City.

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Dr. George Mahlon Hutto, Columbus, announces the association of Dr. John Siegfried Stewart in the practice of radiology at the X-ray Office, City Hospital, Columbus.

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Drs. O. D. King and C. H. Allen, Bremen physicians, have been conferring with members of the Haralson County Hospital Authority relative to subleasing the Haralson County Hospital, Buchanan.

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Dr. Julian L. Lokey, Augusta, assistant professor of medicine at the University Hospital, announces the opening of his office in his native city of Thomson and go into the private practice of medicine. He graduated from the University of Georgia School of Medicine, Augusta, in 1943. He went to the Charlotte Memorial Hospital, Charlotte, N. C., on a rotating internship, and from there went to Johns Hopkins Hospital, Baltimore, Md., where he was offered a fellowship in medicine. He went back to Augusta in 1945 as a resident physician, and a year later was made a teaching fellow in medicine. On July 1, 1948, he was made a teaching fellow and assistant professor in medicine.

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Dr. Marcus Mashburn, Sr., Cumming and Forsyth County physician and Forsyth County representative of the Georgia Legislature, can point with pride to a hospital he provided his community all by himself. Dr. Mashburn, who owned the three-story Cumming Hotel, built on the old Mashburn home site, converted the hotel into a hospital in 1945. In 1946 he built an annex and now has a 30-bed hospital with all modern equipment and facilities. He honored his wife and mother by calling the hospital the Mary-Alice Clinic. Dr. Mashburn always has been interested in civic and public affairs, particularly health and welfare. He served as mayor of Cumming in 1920 and was re-elected as long as he would run for the office. In 1929-30 he represented the old Fifty-First District, now the Thirty-Third, in the State Senate. He found time to come back to the Legislature in 1948. Drs. Marcus Mashburn, Jr., and James Mashburn, sons of the Forsyth representative, are associated with their father in the practice of medicine and operation of the hospital.

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A GREAT TEACHER TAKES A REST

Dr. James R. (Bert) McCord, who is perhaps one of the two or three best-known teachers of obstetrics in America, and who began teaching in Atlanta in 1912, is today departing for Florida and retirement.

Son of the late merchant and lay religious leader, Henry McCord, known to thousands of Georgians and Methodists as "Uncle Henry," Dr. McCord has had a distinguished teaching career. His friends are freely predicting his retirement in Florida will last not more than three or four months, so deep are his roots in Georgia.

As a farewell tribute, most of the city's obstetricians attended a dinner in his honor Thursday evening. Many

of them had been his students.—From the Editorial page of the *Atlanta Constitution* October 15, 1949. Dr. McCord's address is 810 East 5th St., Ocala, Fla.

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Dr. Robert F. Moore, a native Georgian, recently opened his offices in Hinesville for the practice of medicine. Dr. Moore comes from Orange Memorial Hospital, Orlando, Fla. Dr. Moore is a graduate of the University of Georgia School of Medicine, Augusta.

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Dr. George T. Nicholson, Cornelia physician, announces the re-opening of his office in Cornelia for the practice of medicine. Dr. Nicholson left Cornelia in 1947 for additional training at Battye State Hospital, Rome, and in commenting on his return to Cornelia, Dr. Nicholson said, "My family and I are coming home."

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Dr. Margaret Olsen Peebles, Greenville, health commissioner for Meriwether and Harris Counties for over two years, has resigned. She will join her husband, Dr. W. J. Peebles, in Key West, Fla. No one has yet been appointed to fill the vacancy.

* * *

The Oliver General Hospital, Augusta, recently held a special Physical Medicine Clinic with Dr. Thomas L. DeLorme, of the physical medicine department, Massachusetts General Hospital, Boston, Mass., speaking on "Application of Progressive Resistance Exercises to Orthopedic Problem Cases." Dr. DeLorme, one of the nation's foremost authorities on the subject of physical medicine and rehabilitation also spoke on "The Principle and Technic of Progressive Resistive Exercises in the Treatment of Medical and Surgical Conditions." All physicians and surgeons of Augusta and Richmond County were invited to attend the meetings at the hospital.

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Dr. J. H. Hilsman, Atlanta, announces his association with Dr. C. W. Strickler, Sr., and Dr. C. W. Strickler, Jr., at 123 Forrest Avenue, N. E., Atlanta. Internal medicine (gastroenterology).

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Dr. Thomas E. Reeve, Jr., formerly of Calhoun, has been added to the surgical staff of Tanner Memorial Hospital, Carrollton. Dr. Reeve graduated from Emory University School of Medicine, Atlanta, in 1944. He interned at Piedmont Hospital, Atlanta, 1944-45, and established surgical residence there in 1947-1949. He also did postgraduate work in roentgenology and anesthesia at Piedmont Hospital, and practiced general surgery. He is a junior candidate for a fellowship in the American College of Surgeons.

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The Seaboard Air Line Railway Surgeons Association will hold its 47th annual meeting in Havana, Cuba, November 7-12. Attending from Savannah were Drs. Jabez Jones, surgeon; R. L. Nevil, assistant surgeon; W. D. Wilson, assistant surgeon; T. A. Peterson, assistant surgeon; John W. Daniel, Jr., assistant surgeon; J. F. Chisholm, surgeon oculist; St. Julian R. deCaradeuc, surgeon oculist; and J. K. Quattlebaum, consulting surgeon. Also, Dr. J. W. Palmer, Ailey, secretary-treasurer of the Association and Dr. W. K. Smith, of Pembroke, attended the meeting from the Savannah area.

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The Sheffield Cancer Clinic at Georgia Baptist Hospital, Atlanta, recently observed annual clinic day and the following officers were elected: Dr. Henry W. Minor, Atlanta, president; Dr. R. H. Stephenson, Atlanta, vice-president; Dr. A. H. Letton, Atlanta, secretary; Dr. John Funke, Atlanta, director, and Dr. Leonard Long, Atlanta, associate director.

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Dr. D. C. Sirmons, Dahlonega physician, was recently

elected commander of the Heyward Fields Post, American Legion. During the war, Dr. Sirmons served in the U. S. Army Medical Corps for two years. He was on the staffs of the hospital at Fort Logan, Colo., and O'Reilly General Hospital, Springfield, Mo. In accepting the Legion position, Dr. Sirmons stated that the most pressing problem facing the post executives is that of building up active membership of the organization.

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Dr. Frank A. Stelling, Augusta, has been named chief surgeon at the Shriners' Hospital for Crippled Children at Greenville, S. C. He will succeed Dr. J. Warren White, who will be chief surgeon of the Honolulu unit of the Shriners' international hospital group. Dr. Stelling graduated from the University of Georgia School of Medicine, Augusta, in 1938.

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The Southern Medical Association held its annual meeting at the Netherland Plaza Hotel, Cincinnati, Ohio, November 14-17. The following Georgia physicians participated in the meeting by presenting scientific exhibits: Drs. Edgar F. Fincher and Homer S. Swanson, Atlanta; Dr. J. R. Garner, Atlanta; Dr. Cleveland Thompson, Millen. Motion pictures were shown by Drs. Murdock Equen, George Roach and Robert Brown, Atlanta; Drs. H. E. Niebrug, E. R. Pund, Hoke Wammock and S. Banford, Augusta. Dr. Steve P. Kenyon, Dawson, chairman, Section on General Practice, also presented a paper entitled "The Doctor's Obligation to His People." Dr. W. G. Elliott, Cuthbert, opened the discussion of paper read by Dr. John R. Bender, Winston-Salem, N. C. "Care of the Cancer Patient in General Practice," by J. Elliott Scarborough, Emory University. Dr. John S. Atwater, Atlanta, read a paper before the Section on Gastroenterology entitled "The Relationship of Allergy to Gastrointestinal Disease." Dr. William L. Funkhouser, Atlanta, vice-chairman, Section on Pediatrics. Section on Pathology: "The Detection and Diagnosis of Uterine Cancer," Drs. E. R. Pund, and H. E. Niebrug, Augusta. Dr. Robert C. Pendergrass, Americus, vice-chairman, Section on Radiology. Dr. William L. Dobes, Atlanta, vice-chairman, Section on Dermatology and Syphilology. Discussions of papers by Drs. Howard Hailey and William L. Dobes, Atlanta. Dr. Mason I. Lowance, Atlanta, vice-chairman, Section on Allergy. Section on Physical Medicine: "Practical Suggestions for Improvement of Posture," Dr. J. R. Garner, Atlanta. Dr. David Henry Poer, Atlanta, vice-chairman, Section on Surgery. Dr. V. Duncan Shepard, Atlanta, discussed paper listed under this section. Dr. C. E. Irwin, Warm Springs, vice-chairman, Section on Orthopedic and Traumatic Surgery, and Dr. Peter B. Wright opened discussion of paper on this section. Dr. Olin S. Cofer, Atlanta, opened discussion of paper read on Section of Gynecology. Dr. M. K. Bailey, Atlanta, vice-chairman, Section on Urology, and Dr. Harold P. McDonald, Atlanta opened discussion of paper on this section. "Localized Intrarenal Cystic Disease of the Kidney: Report of Two Cases," Drs. Charles Rieser, Chester A. Fort, and J. Denny Moffet, Jr., Atlanta. Section on Proctology: "The Evaluation of Procedures and Findings in Proctologic Examinations," Dr. Marion C. Pruitt, Atlanta. Section on Anesthesiology: Dr. David A. Davis, Augusta, secretary, and discussion of paper by Dr. Perry P. Volpitto, Augusta. Section on Ophthalmology and Otolaryngology: Dr. Murdock Equen, Atlanta, chairman; "The Use of the Magnet in the Lungs and Upper Digestive Tract" (Lantern Slides), Dr. Murdock Equen, Atlanta. Section on Medical Education and Hospital Training: Symposium on the Regional Plan for Medical Education: "Implications of the Regional Program for Medical Education," William McGlothlin, Atlanta; "The Regional Program and Participation of Institutions Meeting the Need," Dr.

R. Hugh Wood, Emory University. Dr. Thomas F. Sellers, Atlanta, vice-chairman, Section on Public Health. Dr. Osler A. Abbott, Atlanta, opened discussion of paper on American College of Chest Physicians, Southern Chapter. Dr. Everett L. Bishop, Atlanta, served as moderator at round table discussion on College of American Pathologist, Southeastern Section, and Dr. Joe M. Blumberg, Augusta, presented "Residency Training."

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Dr. Z. Sweeney Sikes, formerly of Milledgeville, has recently completed two years of approved training toward the American Board of Psychiatry requirements at the Fairfield State Hospital, Newtown, Conn., and is now a resident at Duke Hospital, Durham, N. C., where he will complete the pre-examination requirements of the board.

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The Toombs County Medical Society was recently reactivated when Dr. J. E. Merceir, Vidalia, dean of Toombs County medical profession, was named president. Dr. R. Henry DeJarnette, Vidalia, was made secretary-treasurer, and meetings will be held on the first Wednesday after the 15th of each month. A dinner will precede each monthly meeting and a scientific discussion will follow. Congratulations to the reorganized society!

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The Veterans Administration Hospital, Dublin, has facilities to care for 500 patients, but the problem of recruiting doctors is all that stands in the way of "reactivating" according to Dr. David E. Quinn, superintendent. Today there are 266 patients in the hospital. Dr. Quinn told the visiting American Legion leaders visiting the hospital that of the total of 28 wards at the institution, only eight are being utilized. He said a total of 65 nurses are on duty along with 15 physicians, which include the manager and chief of professional service.

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Dr. R. A. Vonderlehr, Atlanta, Medical Director in charge of the Atlanta Communicable Disease Center of the U. S. Health Service, was in charge of the scientific conference attended by more than 200 of the nation's public health officials meeting at the Academy of Medicine, Atlanta, Oct. 17-18. Dr. Vonderlehr listed the diseases to be studied as: tuberculosis, poliomyelitis, encephalitis, diarrhea and dysentery, diphtheria, rabies, malaria, brucellosis, streptococcal infections and others. The health officers themselves chose the diseases they wanted to hear discussed, Dr. Vonderlehr said. Atlanta is national headquarters of the Communicable Disease Center. Surgeon General Leonard A. Scheele, Washington, D. C., head of the U. S. Public Health Service, opened the meeting of health officers from 48 states and four territories. His subject was "The Conquest of Communicable Diseases."

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The fourth annual meeting of the Georgia Chapter of American College of Surgeons was held at the Biltmore Hotel, Atlanta, November 11. The meeting was held in conjunction with sessions of the Georgia Urological Association, the committee on trauma and the cancer committee of the College of Surgeons and the Fifth District Medical Society. Dr. David Henry Poer, Atlanta, was chairman of the committee on arrangements. Presiding over the opening session at 9 a.m.—general surgery and urology—was Dr. Daniel C. Elkin, Atlanta, governor of the American College of Surgeons. Dr. H. Ansley Seaman, Waycross, is president of the Georgia Chapter, American College of Surgeons. Speakers were Dr. Frank H. Lahey, Boston; Dr. Hayes Martin, New York City; and Dr. George F. Cahill, New York City, professor of urology, Columbia University College of Physicians and Surgeons, who spoke on "Pheochromocytoma." Dr. Harold

P. McDonald, Atlanta, president of the Georgia Urological Association, and Dr. Reese C. Coleman, Atlanta, secretary.

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Dr. W. C. Waters, Atlanta, announces the removal of his office to suite 101, 663 West Peachtree Street, N. E., Atlanta. Practice limited to internal medicine.

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Dr. Seymour Paul Weinberg, Atlanta, announces the opening of his office for the practice of obstetrics and gynecology at 104 Piedmont Avenue, N. E., Atlanta.

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Dr. John G. Zirkle, Savannah, announces the opening of his office for the practice of medicine and surgery at 722 Drayton Street, Savannah, following his completed tour of duty as a reserve officer at Fort Jackson, S. C. Dr. Zirkle graduated from the Vanderbilt University School of Medicine, Nashville, Tenn., in 1938.

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The Fulton County Medical Society held its dinner meeting at the Academy of Medicine, Atlanta, November 17. Public Relations. Dr. Eustace Allen, moderator. "The Value of Public Relations," Dr. Enoch Callaway, LaGrange, president of the Medical Association of Georgia; "The Washington Scene," Hon. James C. Davis, Decatur, Representative Fifth District; "Fight With Knowledge," Mrs. Harry Rogers, Atlanta, president of the Woman's Auxiliary to the Medical Association of Georgia; "A Prepayment Plan," Dr. W. S. Dorough, Atlanta, chairman Prepayment Medical Committee, Medical Association of Georgia; "The American Medical Association's 12-Point Program," Mrs. Richard Wilson, Atlanta, chairman Legislative Committee of the Woman's Auxiliary to the Fulton County Medical Society; "Public Relations Through Medical Insurance," Dr. Mason Lowance, Atlanta, chairman Speaker's Bureau, Fulton County Medical Society; "Hospital Accreditation," Dr. A. M. Phillips, Macon, president-elect of the Medical Association of Georgia; "The Status of Legislation," Dr. Frank E. Wilson, Washington, D. C., Deputy Director of the Washington Office of the American Medical Association.

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Dr. M. Fernan-Nunez, Dublin, chief of laboratory service, VA Hospital, recently addressed the annual dinner meeting of the Kiwanis Club, Swainsboro. His subject was "Socialized Medicine."

He presented the same subject at the annual meeting of the Business and Professional Woman's Association, Dublin, October 11.

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Dr. E. H. Prescott, assistant health officer for Macon city and Bibb County Departments of Health, has accepted a position as commissioner of health for Troup County, effective January 1, 1950. The Troup Board of Health, meeting in special session, Oct. 27, interviewed and unanimously elected Dr. Prescott. He is a native of South Carolina, and graduated from the Medical College of the State of South Carolina, Charleston, S. C., in 1918. He served his internship at St. Francis Infirmary in Charleston and as medical officer in the U. S. Navy from 1918 to 1946. He began his work with the Macon and Bibb County Health Departments in 1946. Dr. Prescott succeeds Dr. William J. Peeples, LaGrange, who resigned in April of this year.

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The Atlanta Eye, Ear, Nose and Throat Society held its monthly meeting at the Academy of Medicine, Atlanta, November 28. Scientific discussions were "Retropharyngeal Abscess," Dr. Harry Arnold, Grady Memorial Hospital; "Pemphigus of the Eye and Esophagus," Dr. John Reed, Grady Memorial Hospital; "Iontophoresis Therapy" with a practical demonstration on a patient by Dr. A. V. Gafford, Lawson VA Hospital. Officers elected for 1950 are Dr. Lester A.

Brown, president; Dr. Wm. T. Edwards, vice-president, and Dr. James T. King, secretary-treasurer.

MILLEDGEVILLE STATE HOSPITAL

Program for Psychiatric Consultants

November 17, 1949, Thursday, 7:30 p.m.—History Taking—Dr. J. R. Shannon Mays, Macon, Ga.
 November 17, 1949, Thursday, 2:30 p.m.—Mental Examinations—Dr. Marion Estes, Augusta, Ga.
 November 29, 1949, Tuesday, 2:30 p.m.—Introduction to Psychopathology—Dr. C. H. Thigpen, Augusta, Ga.
 December 12, 1949, Monday, 7:30 p.m.—Psychopathology (2nd Lecture)—Dr. J. R. Shannon Mays, Macon, Ga.
 December 19, 1949, Monday, 7:30 p.m.—Transference—Dr. John Warkentin (Emory), Atlanta, Ga.
 January 5, 1950, Thursday, 2:30 p.m. Psychopathology (3rd Lecture)—Dr. C. H. Thigpen, Augusta, Ga.
 January 9, 1950, Monday, 7:30 p.m.—Dr. Carl Whitaker, Atlanta, Ga.
 N. B. Lectures to be held in Hospital 4 in the Jones Bldg.

THE FIFTH DISTRICT MEETS

On November 11 the Fifth District Medical Society joined with the Georgia Chapter of the American College of Surgeons and the Georgia Urological Association to stage a gala program. The surgeons had been meeting all day in various sections. At these meetings Georgia doctors presented papers.

The weather was ideal for an outdoor barbecue in the court-yard back of the Academy of Medicine. This had been arranged by Mrs. Edgar Dunstan and Mrs. Steve Brown, of the Woman's Auxiliary of the society. More than 400 persons attended this meeting. It was the first experience of many of the doctors from the north at a barbecue and they were very much impressed that our climate permitted such a party. The food was excellent and in abundance.

After the barbecue the doctors adjourned to the Biltmore and the ladies had their own meeting at the Academy of Medicine. They were addressed by President Enoch Callaway of the Medical Association of Georgia and by Dr. Frank H. Lahey.

The ballroom of the Biltmore was packed for the following program:

Call to order by President Shelley C. Davis of this society.

Remarks by President Enoch Callaway, Medical Association of Georgia.

Dr. George F. Cahill, Professor of Urology, Columbia University, New York—Hematuria: Its Clinical Significance.

Dr. Hayes E. Martin, Director, Head and Neck Surgery, Memorial Hospital, New York—The Diagnostic Significance of a Lump in the Neck.

Dr. Frederick A. Collier, Professor of Surgery, University of Michigan—Parenteral Feeding: Its Dangers and Limitations.

Dr. Frank H. Lahey, Director, the Lahey Clinic, Boston—The Surgical Management of Lesions of the Terminal Ileum, Colon and Rectum.

Election of Officers and other business.

At the conclusion of the meeting Dr. Carter Smith was elected President and Dr. James H. Byram, Vice-President. Dr. L. Minor Blackford, who was elected Secretary-Treasurer last fall, still has two years to serve.

L. MINOR BLACKFORD, M.D.

The JOURNAL would like to record the scientific work of Georgia physicians. It earnestly requests, therefore, that each physician in the State who publishes a contribution in some other medical periodical submit an abstract of the article for these columns.

OBITUARY

Dr. George B. Carter, aged 88, retired Bluffton and Shellman physician, died in a Birmingham hospital, October 4, 1949. Dr. Carter graduated from Emory University School of Medicine, Atlanta, in 1892. He was well known and highly regarded as a Christian gentleman. He is survived by two daughters, Mrs. R. S. Crittenden, Shellman, and Mrs. Keith DuPace, Birmingham, Ala.; two sons, Marion Carter, San Diego, Calif., and C. J. Carter, Shelbyville, Tenn.; two grandsons and two granddaughters. Funeral services were held at the residence of his daughter in Shellman with the Rev. Cecil A. Abbott officiating, assisted by the Rev. G. G. Ramsey and the Rev. J. C. Grimes. Burial was in the Shellman Cemetery, Shellman.

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Dr. Samuel B. Ellis, aged 64, prominent South Georgia physician, died at his home in Pitts, October 8, 1949. Dr. Ellis was born in Cherokee County, Georgia, a son of the late Mr. and Mrs. S. B. Ellis. He graduated from the Southern College of Medicine and Surgery, Atlanta, in 1913. Dr. Ellis was a veteran South Georgia physician and had practiced medicine since his graduation from medical college. He was a member of the Wilcox County Medical Society, the Medical Association of Georgia, and a fellow of the American Medical Association. Dr. Ellis was a member of the Methodist church at Pitts, and was a Mason and a Shriner. Survivors are his wife, Mrs. S. B. Ellis, Pitts; three daughters, Mrs. T. C. Meredith, Orangeburg, S. C., Mrs. Earl Rutherford and Mrs. Raymond Mann, both of Ocilla; two sons, Hubert C. Ellis, Tifton, and Clyde S. Ellis, Valdosta; three brothers and one grandson. Funeral services were held at the Pitts Methodist Church with the Rev. Samuel Buchanan and the Rev. J. N. Crosby officiating. Burial was in the Pitts Cemetery, Pitts.

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Dr. James Clarence Johnson, aged 84, prominent Atlanta medical professor and physician, died at his home November 7, 1949. A native of LaGrange, Dr. Johnson was graduated from the Atlanta Medical College, later Emory Medical College, in 1887. He began his practice in LaGrange in the late 1880's and after about a year there established his practice in Atlanta. For 62 years a practicing physician, he taught medicine at Emory University School of Medicine, Atlanta, for 27 years before his retirement in 1915 as a professor of gastroenterology. Dr. Johnson was a member of the Fulton County Medical Society, of which he was made honorary president in 1935, the Medical Association of Georgia, the Southern Medical Association, and a fellow of the American Medical Association. He served twice as vice-president of the American Gastroenterological Association and was the first president of the Southern Gastroenterological Association. Dr. Johnson was a member of St. Marks Methodist Church and Phi Delta Theta fraternity. Surviving are his wife, the former Miss Bunnie Trimble, of Hogansville; a daughter, Miss Laurin Miller Johnson, and a son, Dr. McLaren Johnson, both of Atlanta; two sisters; a brother; four grandchildren and two great-grandchildren. Funeral services were held at Spring Hill with Dr. John L. Horton officiating. Burial was in West View Cemetery, Atlanta.

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Dr. Kenneth McCullough, aged 58, distinguished Waycross surgeon, died at the A. C. L. Hospital, Waycross, October 28, 1949. A native of Maryland, Dr. McCullough was the son of the late Charles Ellsworth McCullough, a Methodist minister, and Margaret Burdett McCullough. He graduated from the University of Maryland School of Medicine and College of Physicians and Surgeons, Baltimore, Md., in 1915, and interned in St. Joseph's Hospital, Baltimore. Dr. McCullough

had served as chief of staff of the A. C. L. Hospital, Waycross for 14 years and while he was at the A. C. L. Hospital, he was accepted into the Fellowship of the American College of Surgeons. At that time he was the youngest surgeon ever to be accepted, his colleagues reveal. He was a member of the Ware County Medical Society, and had served as secretary-treasurer of the society for approximately 20 years, the Medical Association of Georgia and a fellow of the American Medical Association. He was a staff member of the Ware County Hospital. Survivors include his wife, the former Laura Ward of Gaithersburg, Md.; a daughter, Miss Laura Ellen McCullough, and a sister, Mrs. A. H. Gallaher, Gaithersburg, Md. Funeral services were held at Mincy's Chapel.

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Dr. James Murray, aged 72, former Atlanta physician, died at his home in Conley, November 3, 1949. Dr. Murray was a native of Ellaville and graduated from Birmingham Medical College, Birmingham, Ala., in 1915. He has practiced medicine in the Lakewood Heights and Conley communities for the past 35 years. He was a member of the Forest Park Primitive Baptist Church. Surviving are his widow, Mrs. James Murray; four sons, S. L. and George P. Murray, of Atlanta; T. O. Murray, Bessemer, Ala., and Harry D. Murray, Ellaville, and three sisters. Funeral services were held at the Primitive Baptist Church, Forest Park, with the Rev. J. P. S. Stephens and Elder Elza Spier officiating. Burial was in the churchyard, Forest Park.

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Dr. John Bernard Parham, aged 59, beloved Tallapoosa and Haralson County physician, died October 3, 1949. Dr. Parham graduated from the Bennett College of Eclectic Medicine and Surgery, Chicago, in 1915, and immediately began the practice of medicine. He was unanimously accepted on the courtesy staff of the Tanner Memorial Hospital. He was a member of the Carroll-Douglas-Haralson Medical Society, the Medical Association of Georgia, and a fellow of the American Medical Association. Dr. Parham was an active member of the Tallapoosa Lions Club. Funeral services were held at Tallapoosa. Burial was in Hogansville.

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Dr. Edward Walker Schwall, aged 45, superintendent of the Georgia Training School for Mental Defectives at Gracewood, died September 27, 1949. Dr. Schwall was the son of the late Rev. Charles H. Schwall, a Baptist minister, and Mrs. Schwall, and graduated with honors from the University of Georgia School of Medicine, Augusta, in 1929. He joined the staff of the Milledgeville State Hospital, Milledgeville, where he became clinical director. He was later transferred to his position as superintendent of the Gracewood hospital in 1935 where he has been since, and where, under his direction the institution has expanded to more than double its size. He was a member of the Baldwin County Medical Society, the Medical Association of Georgia, and a fellow of the American Medical Association. Surviving are one son, Edward Walker Schwall, Jr., a student at Fleming School; a daughter, Miss Patricia Walker Schwall, a premedical student at GSCW, Milledgeville, and his mother, Mrs. Charles H. Schwall, Augusta. Funeral services were held at the First Baptist Church, Augusta, with Dr. A. Warren Huyck officiating. Burial was in Westover Memorial Park, Augusta.

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Dr. Irving F. Scofield, aged 70, Tate and Ball Ground physician, died October 18, 1949. Dr. Seofield graduated from Yale University School of Medicine, New Haven, Conn., in 1906. Six years ago he came from Woodside, New York, and located at Tate with the intention of slowing up in the practice of his profession. This was in the time of World War II with its scarcity of doctors and the demand on Dr.

Scofield was great, but he went even beyond his physical strength to meet this demand. He not only maintained an office, but did general practice, including the rural areas. About two years ago he moved to Ball Ground, where he continued the practice of medicine until a few weeks before his death. He was a good doctor and a high type gentleman. He was a member of the Cherokee-Piekens Medical Society, the Medical Association of Georgia, and a fellow of the American Medical Association. Survivors include his wife, Mrs. Irving F. Seofield, Ball Ground; a daughter, Miss Dorothy Scofield, Atlanta, and a sister, Mrs. William Everhart, Centerport, N. Y. Funeral services were held at the Ball Ground Methodist Church, with the Rev. E. P. Kendall and the Rev. A. W. Bussey officiating.

NEW BOOKS

(Continued from Page 578)

who uses it.

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Normal Values in Clinical Medicine. By William Sunderman, M.D., Ph.D., Professor of Experimental Medical and Clinical Pathology, University of Texas Postgraduate School of Medicine, Chief of The Department of Clinical Pathology and Director of Clinical Research, M. D. Anderson Hospital for Cancer Research, Houston, Texas, and Frederick Boerner, V.M.D., Late Associate Professor of Clinical Bacteriology, Graduate School of Medicine, University of Pennsylvania, and Assistant Professor of Bacteriology, The School of Medicine, University of Pennsylvania; Bacteriologist, The Graduate Hospital of Philadelphia; Advanced Bacteriologist, Pennsylvania Department of Health. Published by W. B. Saunders Company, Philadelphia and London.

Normal values in clinical medicine present at all times a problem. To review the charts of patients at one hospital, then to do likewise at another hospital or clinic, is to realize again the various interpretations placed on various data. This book, edited by Drs. Sunderman and Boerner, giving their opinions and the opinions of their collaborators, is easily readable and should be an asset to any physician whose mind turns to normal values in clinical medicine.

* * *

The Eye and Its Diseases. By 92 international authorities. Edited by Conrad Berens, M. D., F.A.C.S., Managing Director of The Ophthalmological Foundation, Inc.; President, Snyder Ophthalmic Foundation; President, American Academy of Ophthalmology and Otolaryngology; Diplomat and former Member, American Board of Plastic Surgeons; President, Pan American Association of Ophthalmology; formerly President of the Section on Ophthalmology of the American Medical Association; Fellow of the American Ophthalmological Society; Fellow of the American Illuminating Engineering Society; Fellow of the Aero-Medical Association; Vice-President, National Society for the Prevention of Blindness; Vice-President, International Society for the Prevention of Blindness. Second edition, with 436 illustrations, eight in color. Published by W. B. Saunders Company, Philadelphia and London, 1949.

This second edition of an already creditable work has had many of the wrinkles ironed out. All told, the book is what its authors made it and should serve a useful purpose to its readers.

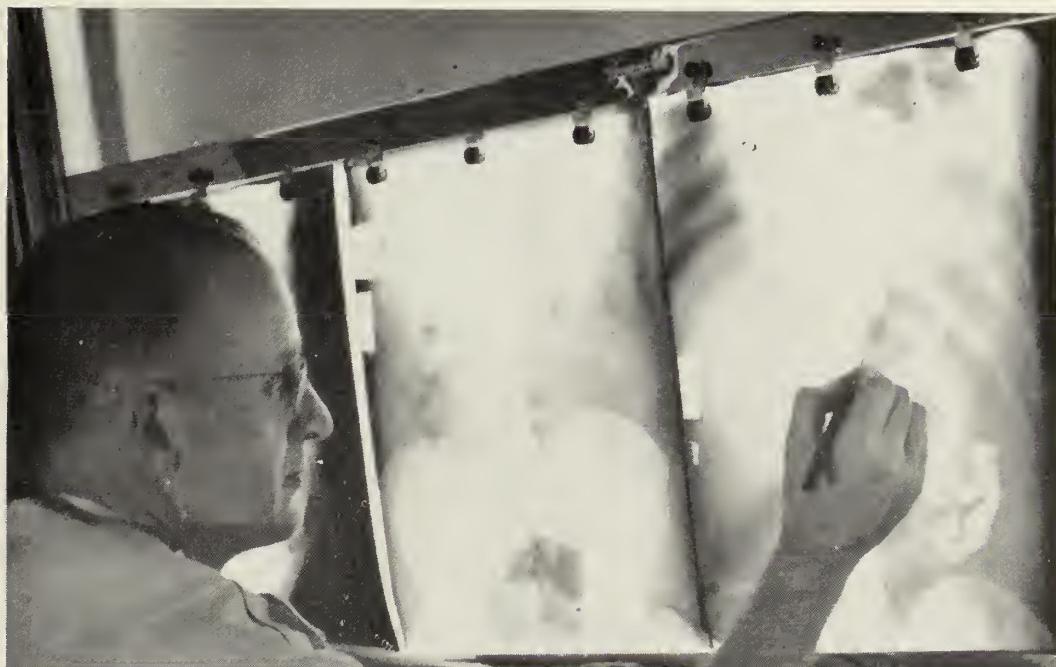
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Golden Jubilee World Tribute to Dr. Sidney V. Haas. In Honor of His Pioneering Contribution to Celiac Therapy and the Treatment of the Hypertonic Infant, and of the Completion of His Fiftieth Year of Medical Practice. Published by The Committee for the Golden Jubilee Tribute to Dr. Sidney V. Haas, Room 609, 730 5th Ave., New York 19, N. Y.

(Continued on Page XVI)

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(Continued from Page 606)

"This book tells the story of the worldwide tribute paid to Dr. Sidney V. Haas on the occasion of his completion of fifty years of medical practice. Dr. Haas was honored at this time for pioneering contributions to pediatrics, particularly in celiac therapy and the treatment of the hypertonic infant."

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Life Among the Doctors. By Paul de Kruif in Collaboration with Rhea de Kruif. Published by Harcourt, Brace and Company, 383 Madison Avenue, New York 17, N. Y.

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* * *

Diseases of the Heart. By Charles K. Friedberg, M.D., Associate Physician, Mount Sinai Hospital, New York; Lecturer in Medicine, Columbia University. Published by W. B. Saunders Company, Philadelphia & London, 1949.

This book, by Dr. Friedberg, portrays nicely the newer knowledge regarding diseases of the heart. Necessarily any publication concerning diseases of the heart must be inclusive, but this book is of medium thickness and reflects the careful thoughts of its author. It will be useful to all students of medicine, and practicing physicians as well.

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